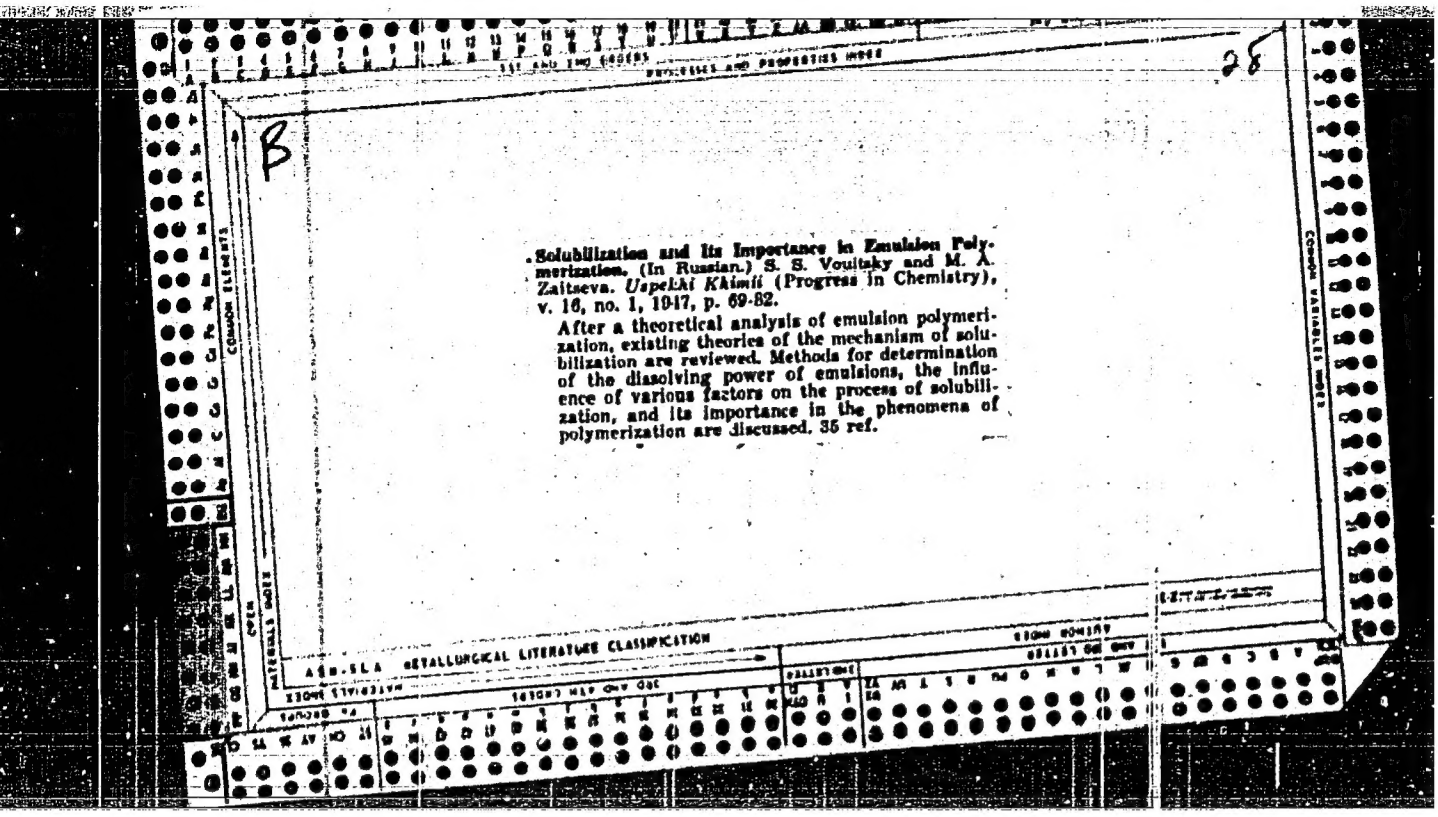
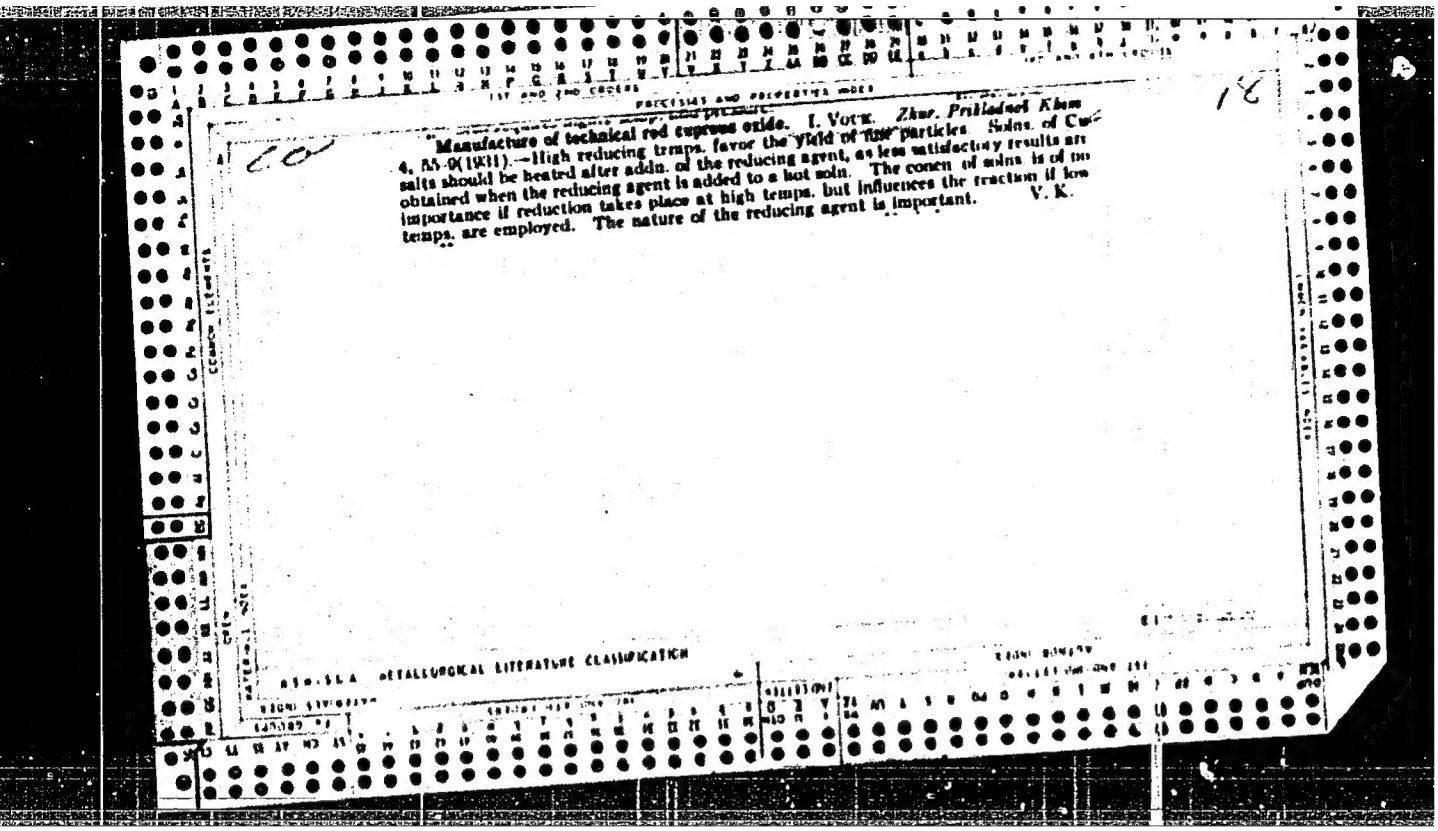
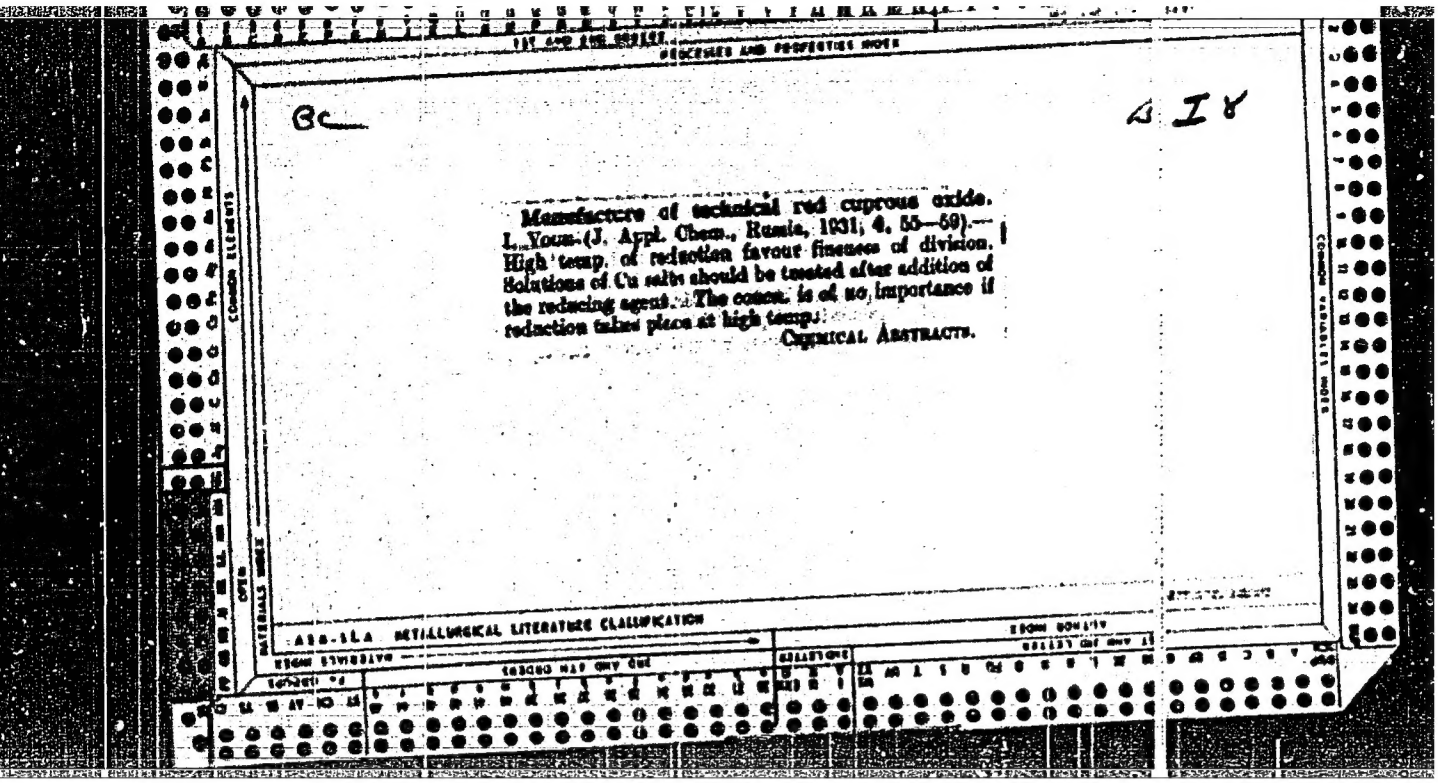


Solubilization and Its Importance in Emulsion Polymerization. (In Russian.) S. S. Voyutsky and M. A. Zaitseva. *Uspekhi Khimii* (Progress in Chemistry), v. 16, no. 1, 1947, p. 69-82.

After a theoretical analysis of emulsion polymerization, existing theories of the mechanism of solubilization are reviewed. Methods for determination of the dissolving power of emulsions, the influence of various factors on the process of solubilization, and its importance in the phenomena of polymerization are discussed. 35 ref.



Manufacture of technical red cuprous oxide. I. Vorx. *Zhur. Prikladnoi Khim* 4, 55-9(1931).—High reducing temps. favor the yield of fine particles. Solns. of Cu salts should be heated after addn. of the reducing agent, as less satisfactory results are obtained when the reducing agent is added to a hot soln. The concn. of solns. is of no importance if reduction takes place at high temps. but influences the fraction if low temps. are employed. The nature of the reducing agent is important. V. K.



Manufacture of technical red cuprous oxide. L. Youm. (J. Appl. Chem., Russia, 1931, 4, 55—59).—High temp. of reduction favour fineness of division. Solutions of Cu salts should be treated after addition of the reducing agent. The concn. is of no importance if reduction takes place at high temp.

CHEMICAL ABSTRACTS.

VOUK, Vale, dr., prof., akad. (Zagreb, Tomislavov trg 8)

Research in Trsteno and Boka Kotorska concerning the variations of the species Ruscus aculeatus. Ljetopis JAZU 63:396-399 '56 (publ.'59).

1. Prirodoslovno-matematicki fakultet Sveucilista u Zagrebu; zamjenik clanova Nadzornog odbora Jugoslavenske akademije znanosti i umjetnosti.

Vouk, V.

12

YUG/5589

BOOK EXPLOITATION

Grubor, Ljubo, Pub.

Atomska biološka hemijska oružja i zaštita; štirka članaka (Atomic, Biological, and Chemical Weapons and Protection Against Them; Collection of Articles) Zagreb, Epoha, 1960. 436 p. No. of copies printed not given.

Authors of articles: Pavle Šerif, Academician, Milorad Ristić, Engineer, Dragutin Miljković, Doctor, Nenad Ražić, Engineer, Milovan Vidmar, Engineer, Adam Miljković, Miljković, Doctor, Srđan Rajčković, Doctor, Velimir Vouk, Doctor, Ante Miljković, Milhofer, Engineer, Srđan Rajčković, Doctor, Milivoje Perišić, Doctor, Svetolik Ražić, Doctor, Čedomil Šobotić, Doctor, Milivoje Perišić, Doctor. Engineer, Ksenija Šerif, Engineer and Kazimir Barjla, Doctor.

PURPOSE: This collection of articles is intended for the general reader as well as for personnel in scientific research and similar organizations.

COVERAGE: The book contains 16 articles dealing with general problems of atomic, biological, and chemical warfare weapons and defense methods. The following topics are discussed: nuclear power, reactors, radiological detection and dosimetry, their peaceful application; nuclear weapons, radiological detection and dosimetry, some problems of the effect of nuclear explosion on the organism and of internal contamination by radioactive isotopes, problems of gas and chemical warfare, and the use of combat poisons. The foreword was written by Major General Rade Bulat. References follow most of the articles.

TABLE OF CONTENTS:

* [Djurić and Đurić are spelling variations; both forms are found in the book]

V. VOUK

"Auxins in forestry; the book Express Forests by D. Afanasijev." p. 1. SUMARSKI LIST, Vol. 77, no. 1, Jan 1953, Zagreb, Yugoslavia)

SO: Monthly List of the East European Accessions, L. C., Vol. 2, No. 7, July 1953, Uncl.

VOUK, VALE

Vouk, Vale. Problemi biologije termalnih voda u teoriji i u praksi. Zagreb (Jugoslavenska akademija znanosti i umjetnosti) 1951 33p. (Predavanja odrzana u Jugoslavenskoj akademiji, sv. 3) (Problems of the biology of thermal waters in theory and practice, Illus. bibl.)

SO: East European, IC, Vol. 2, No. 12, Dec. 1953

Vouk, Vale

YUGOSLAVIA/General Division. General Questions. Philosophy. Metho- A-1
dology.

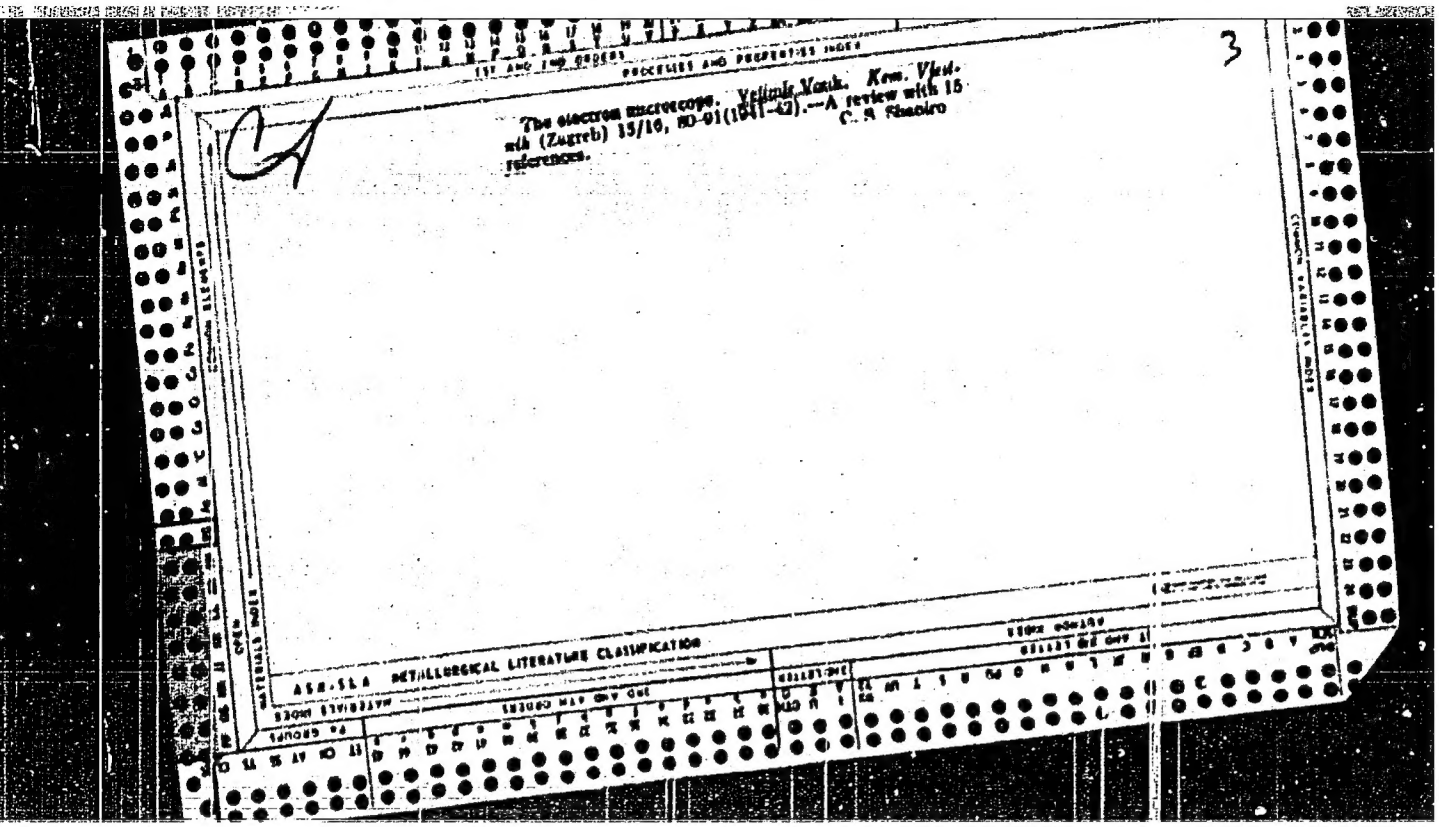
Abs Jour: Ref. Zhur. Biologiia, No 4, 1958, 14091.

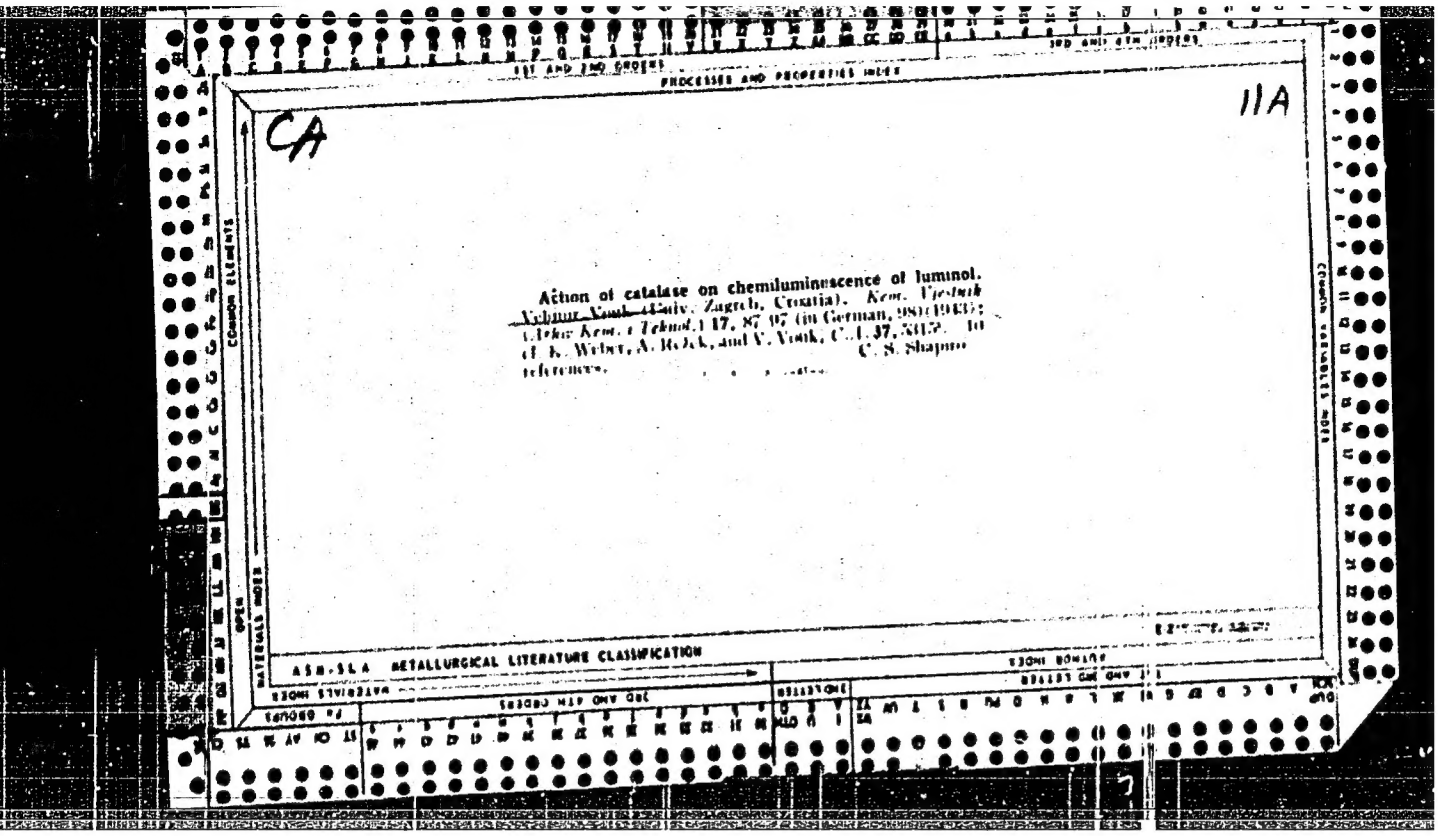
Author : Vouk Vale
Inst :
Title : The Unity of the Biological Sciences.

Orig Pub: Glasnik biol. sek. Hrvatsko prirodosl. drustvo, 1953 (1955). Ser. 2B, 7, 83-86.

Abstract: The question of the bond between the biological disciplines is examined in its historic scheme. It is pointed out that the creation of such sciences as cytology, genetics, ecology, and physiology have already thrown across a bridge between plants and animals. The unification of the biological sciences in biology alone is characteristic of the XXth century.

Card : 1/1 -7-



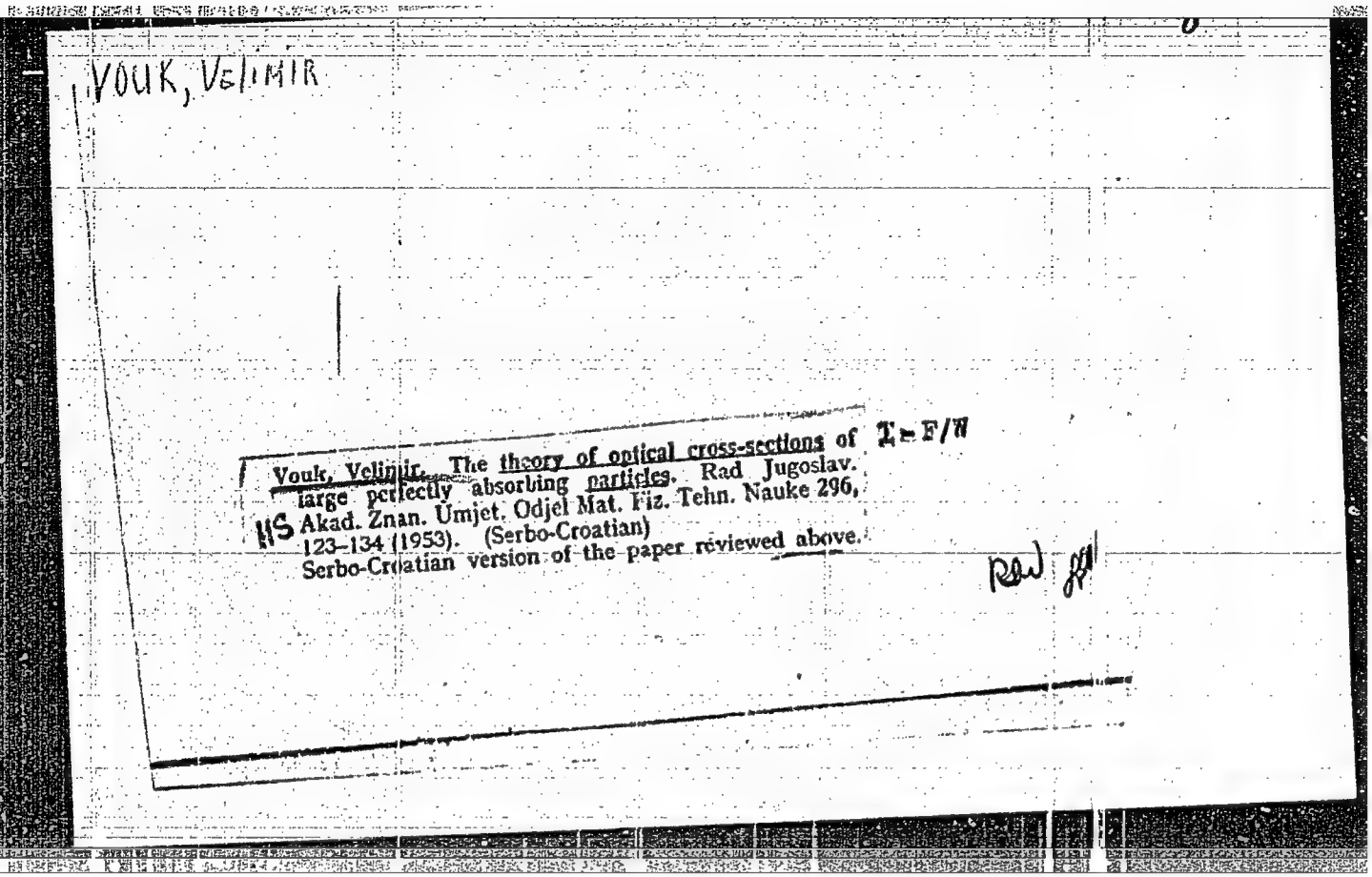


VOUK
VOUK, VELIMIR

VOUK, Velimir

Notes on organization of scientific work and institutes in various European coutries. Radovi Med. fak. Vol. 3:295-317 1953.

(RESEARCH
*med., in Europe, organiz.)
(SCHOOLS, MEDICAL
*Europe, organiz.)



VOUK, VELIMIR

Vouk, Velimir. The theory of optical cross-sections of large perfectly absorbing particles. Rad Jugoslav. Akad. Znan. Umjet. Odjel Mat. Fiz. Tehn. Nauke 296, 123–134 (1953). (Serbo-Croatian)
Serbo-Croatian version of the paper reviewed above.

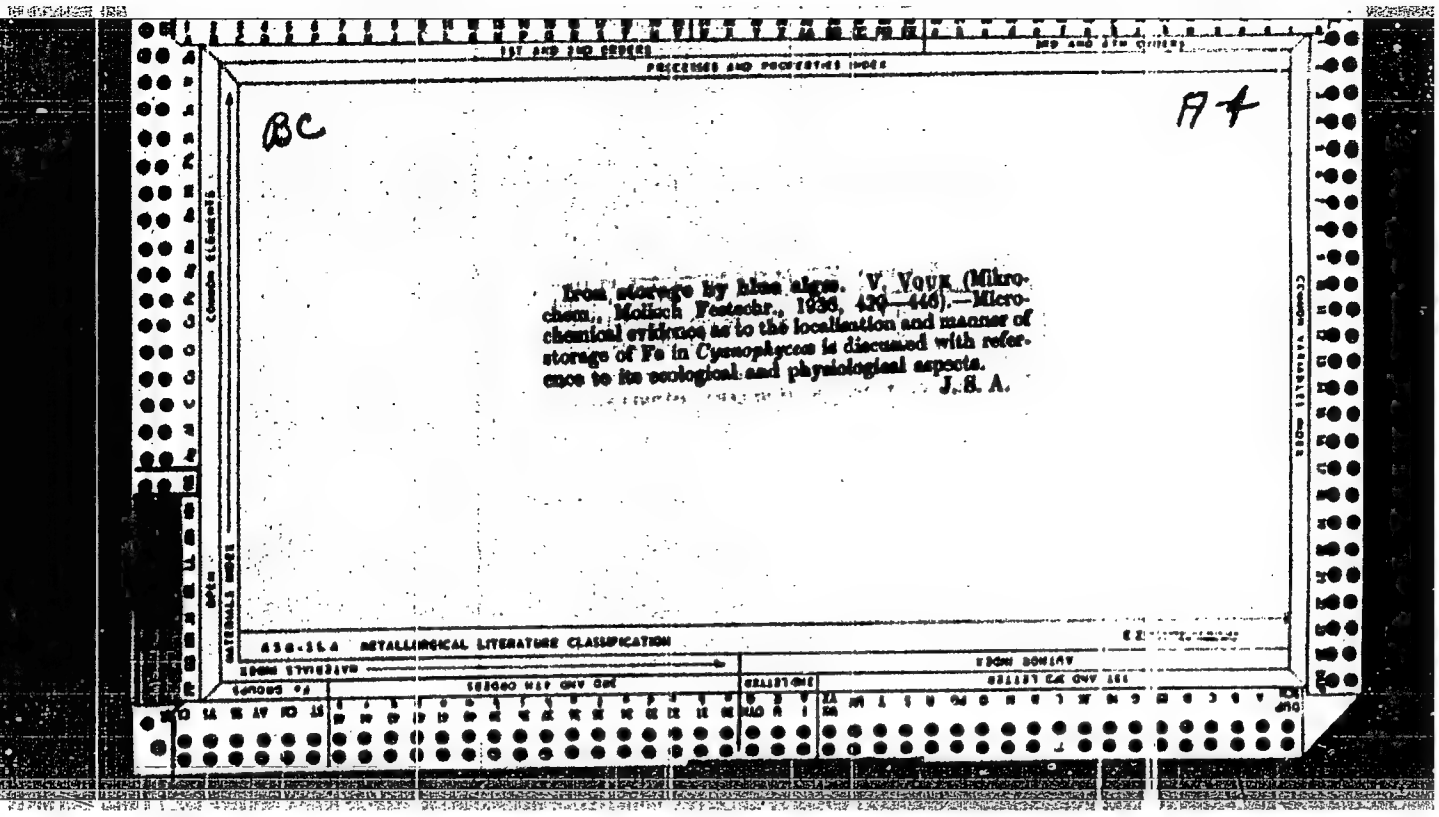
$T = F/W$

RAW

TIEFENBACH, Branka, dr.; BUZINA, Ratko, dr.; VOUK, Velimir, dr.

Value of certain blood variables in blood-donors in Zagreb. Lijec. vjes. 81 no.9-10:637-645 '59.

1. Iz Centralnog Higijenskog zavoda u Zagrebu i Instituta za medicinska istrazivanja Jugoslavenske Akademije znanosti i umjetnosti u Zagrebu.
(BLOOD DONORS)

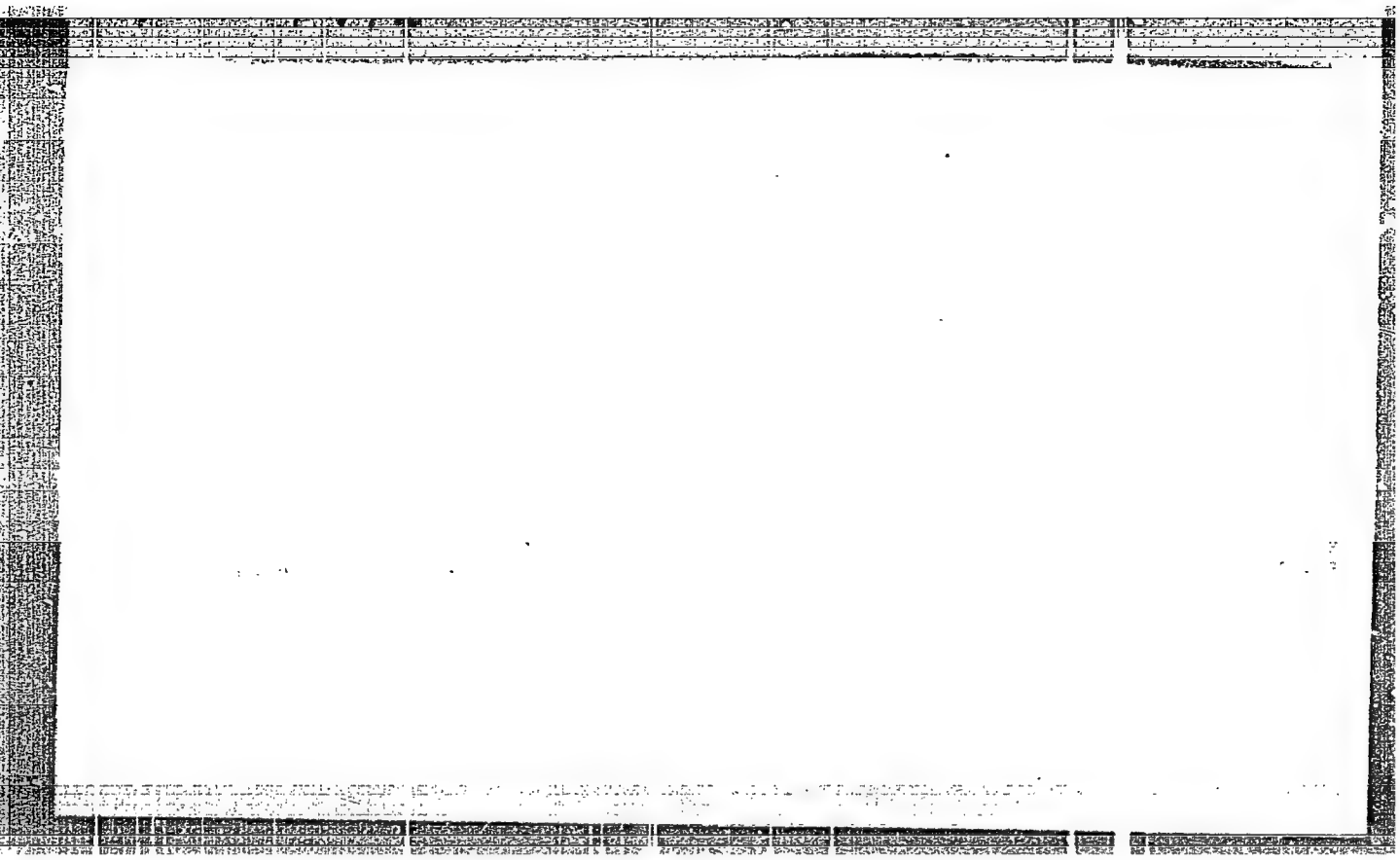


BC

A+

From storage by blue algae. V. Vouk (Mikrochem., Molisch Festschr., 1936, 429—446).—Microchemical evidence as to the localisation and manner of storage of Fe in *Cyanophyceæ* is discussed with reference to its ecological and physiological aspects.

J. S. A.



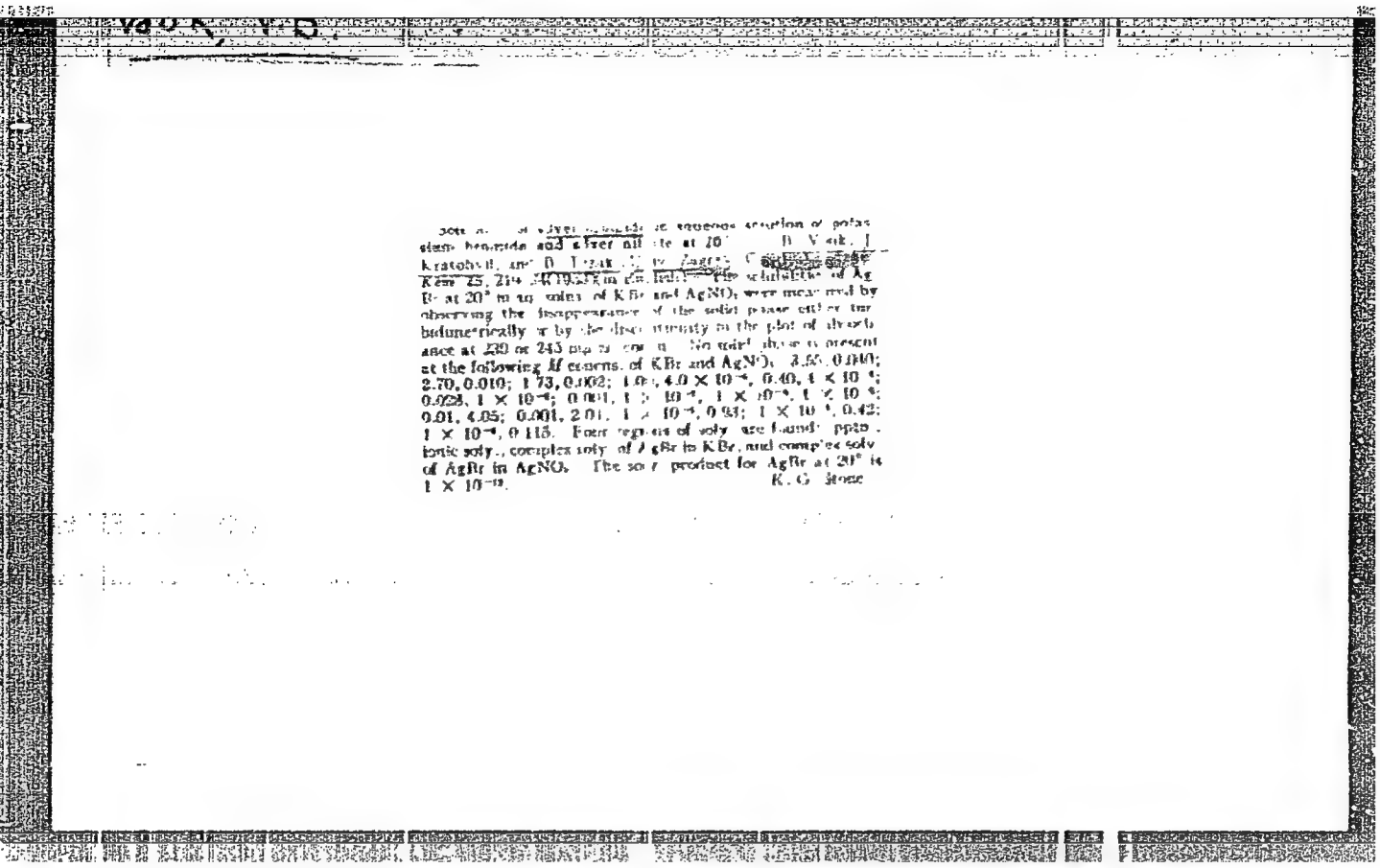
APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001861110009-4"

VOUK, V. B.

USSR

The physiological analyses of the fertilizing effect of brown coal. I. The effect of the brown coal from the Zenica Mine on the growth of mustard in aqueous cultures. V. B. Vouk and Z. Klas. *Bull. intern. acad. yougoslave sci. et beaux-arts, [N.S.] Livre* 10, *Classe sci. nat., Livre* 4, 5-14 (1953)(In English).—See *C.A.* 48, 7120e. II. Nitrogen as a component of the fertilizing effect of brown coal. *Ibid.* 15-33.—See *C.A.* 48, 7120f. III. The effect of aqueous extracts and ash of Zenica coal on the growth of mustard. V. B. Vouk, Z. Klas, and N. Rumen. *Ibid.* 33-40.—See *C.A.* 48, 7120f. IV. Comparative investigations on the effect of Zenica coal and microelements on the growth of mustard in nutrient solutions. *Ibid.* 41-8.—See *C.A.* 48, 7126g.

N. Plavšić



Vouk, V. B.

Polarographic determination of uranium (VI). V. B. Vouk, M. Branica, and [illegible] (Croatia). Archiv Kem. [illegible] (in English) cf. C.A. 45, 8393c-In a soln. [illegible] 1.6 salicylic acid/l., 4 ml. H_2SO_4/l. and 0.[illegible]% thymol, the diffusion [illegible] /ml. with a standard error of 0.8 %.
Procedure: evap. the soln. of U(VI) to dryness with 1 ml. $HClO_4$, take up in the supporting electrolyte, and deaerate for 10 min. before the polarogram. M.G.S.

MF

Polarographic behavior of uranium(VI) in a mixture of salicylic and sulfuric acid. D. A. Weber, M. Branica, and V. B. [illegible] (Inst. Med. Research, Zagreb, Croatia). [illegible] 23 [illegible] (in English); cf. preceding 2 abstrs. $E_{1/2}$ [illegible] U(VI) is −0.217 ± 0.0007 v. The diffusion coeff. for 4 × 10 [illegible] M U(VI) is 4.04 × 10^{-6} sq. cm./sec. The diffusion-current const. (607$nD^{1/2}$) is 1.22. The peak of the electrocapillarity curve for Hg in this medium is at −0.54 v. vs. the satd. calomel electrode. K. O. B.

4 - 1 - 55

The [illegible] analyses of the fertilizing effect of brown coal. I. The effect of brown coal from the Zenica Mine on the growth of Sinapis alba in aqueous culture solutions. V. B. Vouk and Z. Klas (Yugoslav. Acad., Zagreb). *Rad. Jugoslav. Akad. Znanosti i Umjetnosti* 294, 9-21(1953).—Results of pot expts. are reported on the growth of *S. alba* in normal Crone nutrient solns. contg. 0.03 to 1.0% of powd. brown coal. The roots were elongated in parallel with increasing coal addns. The optimum elongation of the stem was with 0.75% coal. The dry wt. increased uniformly both in the roots and in the stems with increasing coal addns. II. Nitrogen as a component of the fertilizing effect of brown coal. *Ibid.* 23-50.—The growth of *S. alba* and *Rumex communis* in various Crone nutrient solns. contg. decreasing amts. of KNO_3 and increasing amts. of powd. brown coal, has been followed. All cultures grown in media contg. no KNO_3 were stunted and deficient in dry matter. This indicates that the plants were not able to obtain their N requirements directly from the coal added. It is postulated that the coal functions as a hormone promoting the [illegible] and exchange of ions in the nutritive process. III. The effect of aqueous extracts and ash of brown coal on the growth of Sinapis alba. V. B. Vouk, Z. Klas, and N. Rumen. *Ibid.* 51-61.—Pot expts. with *S. alba* show that the ash of Zenica brown coal, added to a normal Crone nutrient soln. in the amt. of 0.7%, had no influence on the growth of the plant. A fertilizing effect was observed, however, when an aq. ext. of the coal was added to the culture soln. A slight effect was also observed when the ash obtained from the aq. ext. was added to the culture soln. IV. Comparative investigations on the effect of Zenica coal and of microelements on the growth of Sinapis alba in nutritive solutions. *Ibid.* 63-72.—The growth of *S. alba* was studied in the following nutrient solns.: (I) a normal Crone soln.; (II) a normal Crone soln. contg. 14 [illegible] g. powd. Zenica brown coal (III); a normal Crone soln. contg. [illegible] of the Hoagland soln.; (IV) a normal Crone soln. contg. 1.7 cc. of the Hoagland soln. plus [illegible] brown coal, and V a normal Shive soln. [illegible] the Hoagland soln. With IV the [illegible] increased by 15% and the [illegible] elongated by 150%. The net fertilizing effect of III and I was far behind that of IV. With II the dry matter content increased by 240%. The fertilizing effect of [illegible] was po[illegible].

N. Plavšic

Vouk, V.B.

The influence of lead ions on the release of acetylcholine. Krista Kostial, V. B. Vouk, and Ljerka Purec. *Arhiv Hig. Rada* 5, 351–4(1954).—The preganglionic nerve of cat superior cervical ganglion was stimulated with a current of 2 cycles per sec. and perfused with Ringer soln. contg. 1:100,000 eserine sulfate. Addn. of lead nitrate (1 γ per cc.) reduced the amt. of acetylcholine in perfusate to 35% of its original value. When nictitating membrane contractions were measured, the addn. of lead ions caused a complete block of ganglionic transmission, while stimulating the preganglionic nerve fibers. V. Mihailov

HD

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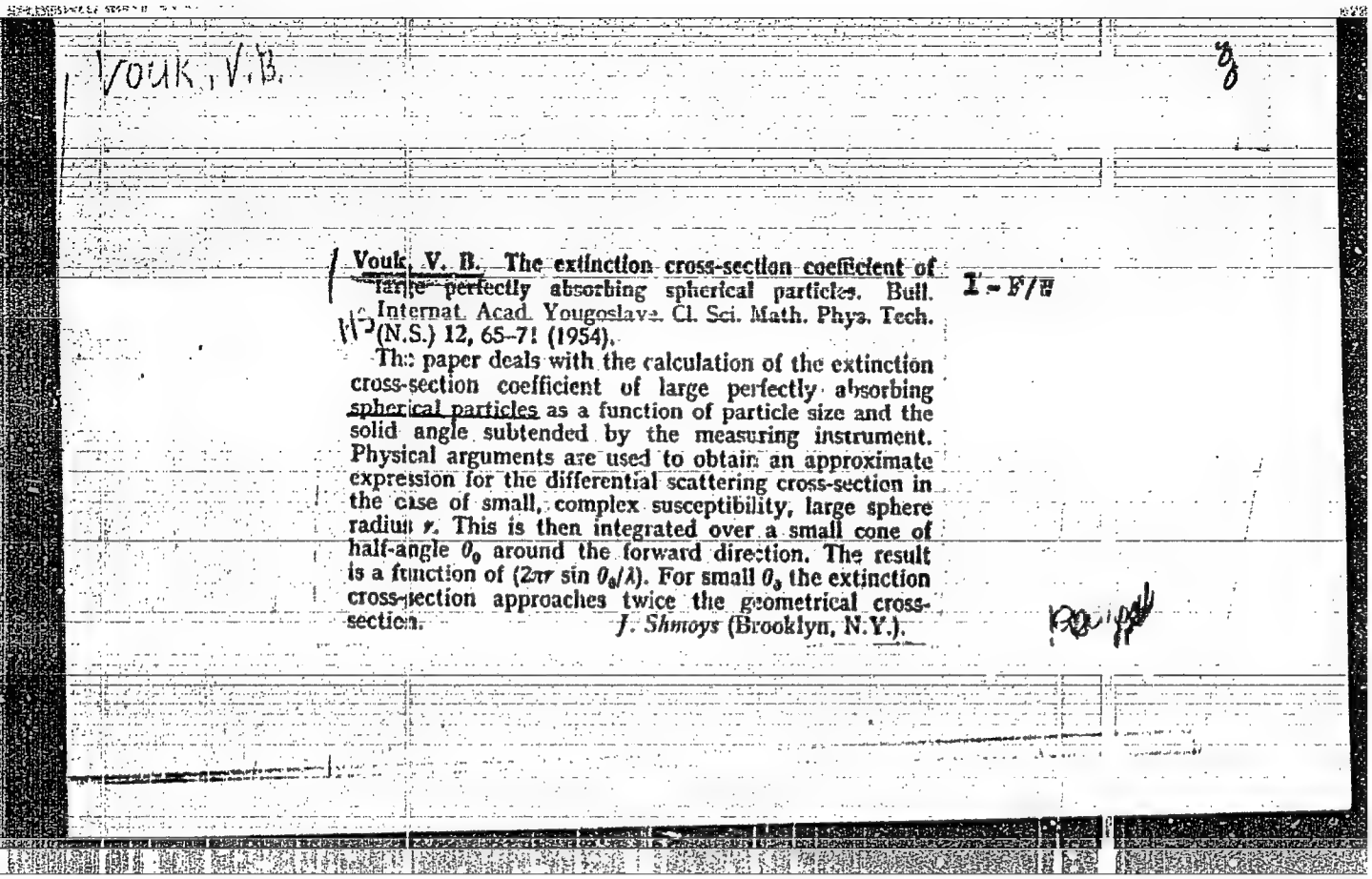


VOUK, V.B.

Vouk, V. B. The extinction cross-section coefficient of large perfectly absorbing spherical particles. Bull. Internat. Acad. Yougoslave Cl. Sci. Math. Phys. Tech. (N.S.) 12, 65–71 (1954).

I-F/H

The paper deals with the calculation of the extinction cross-section coefficient of large perfectly absorbing spherical particles as a function of particle size and the solid angle subtended by the measuring instrument. Physical arguments are used to obtain an approximate expression for the differential scattering cross-section in the case of small, complex susceptibility, large sphere radius r. This is then integrated over a small cone of half-angle θ_0 around the forward direction. The result is a function of $(2\pi r \sin \theta_0/\lambda)$. For small θ_0 the extinction cross-section approaches twice the geometrical cross-section.

J. Shmoys (Brooklyn, N.Y.).

VOUK, V. B.

The complex solubility and the composition of aqueous complex solutions of silver halides and silver thiocyanate. V. Kratohvil, B. Težak, and V. B. Vouk (Univ. Zagreb, Yugoslavia). *Arhiv Kem.* 26, 191–[illegible](in English).—A systematization and comparison of the numerous data on complex soly. of Ag halides and AgSCN obtained by various techniques was made. The results are represented as plots of the log of the total concn. of Ag ions vs. the log of the total concn. of halide or SCN^- ions at the soly. boundaries (so-called soly. curves). Satisfactory agreement between the data of various authors was noted. Except in the ionic soly. regions, the effect of the ionic strength was small or completely absent. Complex soly. of AgCl in solns. of various sol. chlorides increases in the order $NH_4Cl > KCl = LiCl > NaCl > HCl$ and $BaCl_2 > SrCl_2 > CaCl_2 > MgCl_2$. The effect of the accompanying cation from chloride component decreases with the increasing dilu. of the solns. This was tentatively connected with the steric factors. The complex soly. in the solns. of the corresponding sol. halide or SCN^- salts (for amts. of solid phase greater than 10^{-4} M) changes in the order AgSCN > AgI > AgBr > AgCl. Increase of the complex soly. in the solns. of $AgNO_3$ is in the order AgI > AgSCN > AgBr > AgCl. A higher concn. of Ag ions is necessary for dissolving the same amt. of solid phase than for halide or SCN ions. In order to evaluate the compn. of the complex solns. and to det. the constitution of the sol. complex species and their stability consts. in the various concn. ranges, a direct graphic method was elaborated.

The soly. curves could be approximated by a series of secants, whose slopes were in all cases only slightly different from small whole nos. (0 to 4). The values of the slopes of the secants represent the no. of ligands, arranged, bound to the central ion in a mononuclear complex. The segments of the secants on the ordinate represent the equil. consts. of solid phase and the formation consts. of the corresponding complexes, resp. The stability const. of a complex is equal to the ratio of the corresponding equil. const. and the soly. product. At high concns. of the component in excess the formation of polynuclear complexes is assumed. By the procedure described the complex soly. results were interpreted and the stability consts. of the complex ions compared with the conclusions of other authors. Extensive tables including the authors, the references, the concn. ranges of the component in excess, the compns. of the complex ions present, and the corresponding stability consts. are given. Essentially the same results were reached by various authors. The reliability of the interpretation of the soly. data is discussed.

J. Kratohvil

VOUK, V.B. in collab.with Z. TOPOLNIK, F. VALIC AND O.A.WEBER.

No translation. Arh.hig.rada 6 no.1:29-32 1955.

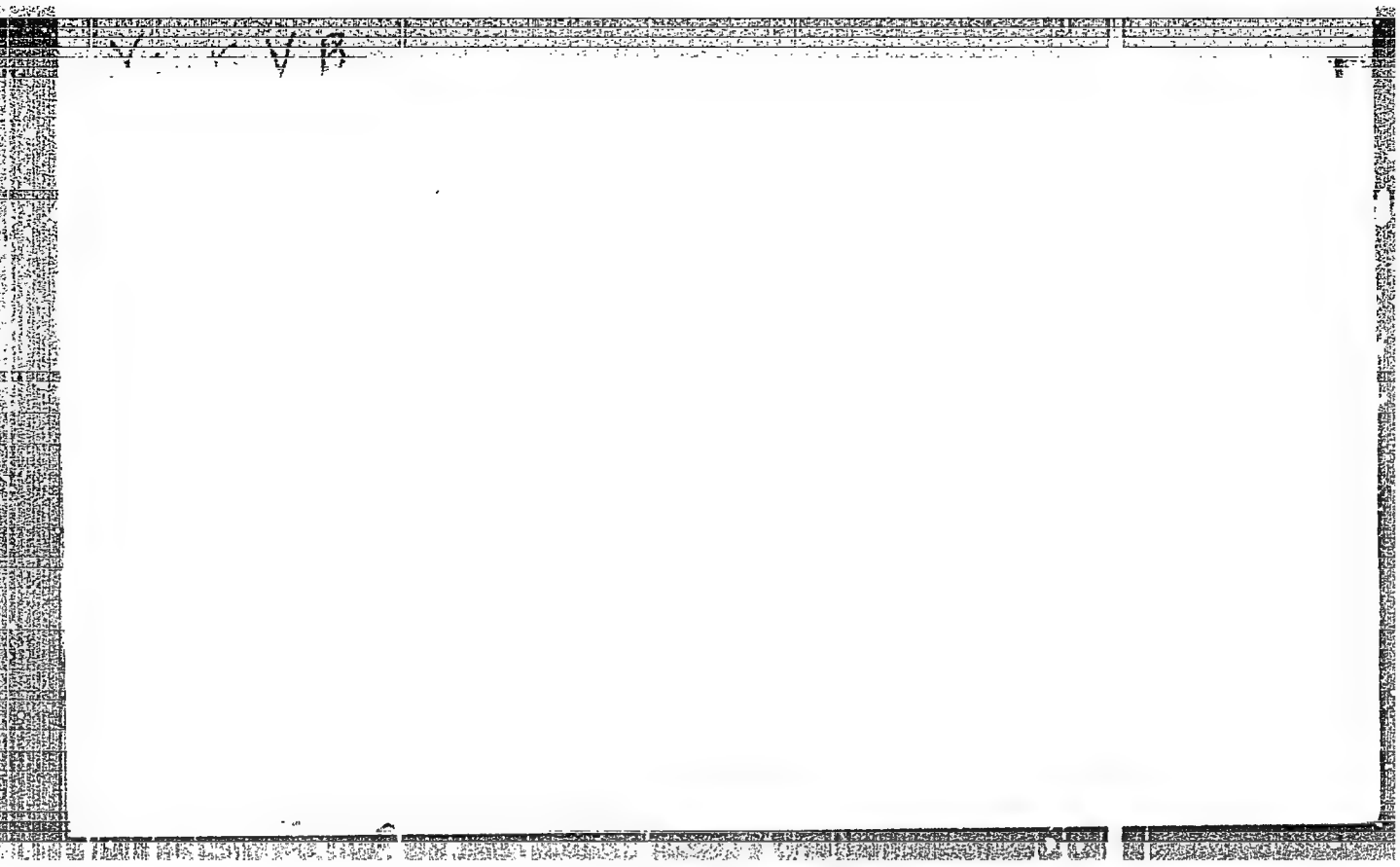
1. Institute of Industrial Hygiene, Yugoslav Academy of Sciences and arts. Zagreb.
(GASES,
exper.gas chamber, design & operation)

Vouk, V. B.

1884. Treatment of polarographic data by the method of least squares. II. Simultaneous estimation of the diffusion current and the half-wave potential. V. B. Vouk, P. K. Kesmalkar and O. A. Weber (Inst. Ind. Res., Yugoslav Acad. Sci., Zagreb, Yugoslavia). *Arkiv Kem.*, 1955, **27** (1), 9–15.—The method of least squares has been applied to the simultaneous determination of $E_{\frac{1}{2}}$ and i_d with an accuracy slightly greater than that obtained from the usual graphical methods. The method is very well suited to the analysis of composite current-voltage curves, particularly for those metals whose curves tend to coalesce, *e.g.*, those of Pb^{++} and Tl^{+}. The paper is mainly mathematical in its treatment, but the equations derived are illustrated by use of the data collected from the polarograms of $4 \cdot 0 \times 10^{-4}$ *N* $TlNO_3$ and $4 \cdot 0 \times 10^{-4}$ *N* Pb acetate in $0 \cdot 1$ *N* KCl as supporting electrolyte.

D. G. Higgs

(2)



APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001861110009-4"

KESIC,B.; VOUK,V.B.

In Memorian Prof. A. Stampar. Struggle of Andrije Stampar for the reform of medical education. On first anniversary of his death. Radovi med. fak.,Zagr bu 7 no.1:1-8 '59.
(OBITUARIES)

YUGOSLAVIA

Krista KOSTIAL, Kata VOLODER, V.B. VOUK and O. WEBER, Institute for Medical Research and Occupational Medicine (Institut za medicinska istrazivanja i medicinu rada), Zagreb.

"Effect of Chelating Agents on Renal Retention of Uranium."

Zagreb, Arhiv za Higijenu Rada i Toksikologiju, Vol 13, No 4, 1962; pp 289-293.

Abstract [English summary modified]: In rats, 7.6 mg./Kg. of uranyl nitrate i.p.: 28% of dose in renal tissue 3 hours after administration. Diethylene pentaacetic acid immediately after U reduced this to 12% (P=0.05) while hydroxydiphenylether phosphate paradoxically increased it to 55% (P between 0.01 and 0.02.) Latter chelating agent is assumed ineffective as potential therapeutic agent because the U complex formed with it is poorly water-soluble and cannot diffuse. Table, 7 Western and 1 unpublished Yugoslav reference.

1/1

KOSTIAL, Krista; VOLODER, Kata; VOUK, V.B.; WEBER, O.

The influence of chelating agents on uranium retention in the kidney.
Arh. hig. rada 13 no.4:289-293 '62.

1. Institut za medicinska istrazivanja i medicinu rada, Zagreb.
(EDATHAMIL) (URANIUM) (KIDNEY)

VOUK, V.B.; POPOVIC, V.

Methods for determination of radioactivity in the atmosphere. Arh. hig. rada 13 no.3:245-250 '62.

1. Institut za medicinska istrazivanja i medicinu rada, Zagreb.
(AIR POLLUTION, RADIOACTIVE)

5

VOUTSEKHOVSKAYA, A.L.; KOSUL'NIKOVA, N.A.; RUDOL'FI, T.A.; DASHUNIN, V.M.
BELOV, V.N. [deceased]

Transformations of δ-methyl-δ-alkyl-δ-valerolactones under the effect of polyphosphoric acid. Zhur. VKHO 10 no.6:702-703 '65 (MIRA 19:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskikh i natural'nykh dushistykh veshchestv. Submitted April 7, 1965.

VOVACHEK

CZECHOSLOVAKIA/General Section - Problems of Teaching. A-5

Abs Jour : Ref Zhur - Fizika, No 4, 1957, 8281

Author : Vovachek
Inst :
Title : Instrument for Demonstration of the Conversion of Mechanical Energy Into Heat.

Orig Pub : Prirod. vedy skoly, 1956, 6, No 7, 650-651.

Abstract : No abstract.

Card 1/1

ACCESSION NR: AP4037175 S/0069/64/026/003/0296/0300

AUTHOR: Deynega, Yu. F.; Vovnenko, A. M.; Vinogradov, G. V.

TITLE: Electric conductivity of plastic dispersion systems under static and dynamic conditions

SOURCE: Kolloidny*y zhurnal, v. 26, no. 3, 1964, 296-300

TOPIC TAGS: lubricant electroconductivity, soap oil grease, plastoviscometer condenser, lubricant specific resistance, dielectric lubricant, electrokinetic phase change, electrolysis, lubricant elastic deformation

ABSTRACT: This electroconductivity was studied in soap-oil greases, with a rotatory plastoviscometer in which the interior and exterior cyclinders were isolated and which could be rapidly stopped serving as a condenser. The equipment is described in detail. Direct current resistance was measured with a megaohmmeter. Standard error was ± 1.5 — ± 10%. Structural changes of the greases in the electric fields were determined by the polarization-optical method. The greases studied were sodium, calcium and lithium-based soaps thickened with mineral oil; 20.6% Na soap of castor oil acids, 17.5% hydrated Ca soap of cottonseed oil acids and 10%

Card 1/3

ACCESSION NR: AP4037175

technical Li stearate. A double electric layer is known to exist in soap-oil greases on the boundary surface. Its presence is reflected in the dielectric characteristics of the lubricants. The typical soap-oil greases had a specific resistance of 10^{10} - 10^{14} ohm/cm (Li highest, Ca lowest). Upon applying a constant electric field, the specific resistance of these systems will increase with time. Change of the charge sign of the electrodes will cause a sharp drop of specific resistance. These effects were connected with various manifestations at the electrodes (e.g. electrolysis, and gas bubbles). As a result of electrolysis, water gradually disappears from the system, affording electrokinetic phase change. At the surface of the negative electrode a layer of the dispersion medium is formed. Simultaneously the structural framework is compressed at the positive electrode and the thickness of the boundary layer increases with the duration of electric field action. A drop of specific resistance occurs as a result of grease deformation. Upon abrupt stopping of the plastoviscometer-condenser, a sharp change of specific resistance is also registered. Under the influence of the force of inertia, elastic deformation of the structural framework takes place. This may pull the material off the rotor surface. Upon return of this framework, the material will again make contact with the rotor. This explains the rapidly alternating increase and decrease of specific resistance upon sharply decelerating the system.

Card 2/3

ACCESSION NR: AP4037175

Moisture plays an important part. Orig. art. has: 3 figures.

ASSOCIATION: Institut obshchey i neogranicheskoy khimii AN UkrSSR,Kiev(Institute of General and Inorganic Chemistry AN UkrSSR)

SUBMITTED: 01Oct62 ENCL: 00

SUB CODE: GC, EM NO REF SOV: 007 OTHER: 003

17

Card 3/3

VOVCHENKO, A.S., inzh.

Some problems of determining the labor input in beet sugar manufacture. Pishch. prom. no.2:3-7 '65. (MIRA 18:11)

1. Kiyevskiy tekhnologicheskiy institut pishchevoy promyshlennosti.

VOVCHENKO, D., kand. biolog. nauk

Control of crown-gall disease. Zashch. rast. ot vred. i bol. 10 no.10:58-59 '65. (MIRA 18:12)

1. Mleyevskaya opytnaya stantsiya sadovodstva.

VOVCHENKO, D. Prof.

"200th Anniversary of Moscow University," Vest. Vysshey Shkoly, No.5, 1955

Moscow State University im. Lomonosov

German abstract on p. 70, Das Hochschulwesen, Vol.3, 1955

SAVKOVSKIY, P.P., nauchn. sotr.; ISAYEVA, Ye.V., nauchn. sotr.; OL'FER, A.V., nauchn. sotr.; SHCHERBAKOV, V.V., nauchn. sotr.; POVZUN, I.D., nauchn. sotr.; MASLO, Ye.M., nauchn. sotr.; KRYLOVA, A.S., nauchn. sotr.; MATVIYEVSKIY, A.S., nauchn. sotr.; VASIL'KOVA, A.K., nauchn. sotr.; VOVCHENKO, D.P., nauchn. sotr.; BOGDAN, L.I., nauchn. sotr.; GROTTE, G.M., nauchn. sotr.; SKUTSKAYA, N.P., red.; DAKHNO, Yu.B., tekhn. red.

[Pests and diseases of fruit and berry crops] Vrediteli i bolezni plodovo-iagodnykh kul'tur; spravochnik. Kiev, Izd-vo AN Ukr.SSR, 1962. 275 p. (MIRA 16:7)
(Fruit—Diseases and pests)

PRIDANTSEVA, Ye.A., nauchnyy sotrudnik; PONIROVSKIY, V.N. (Khar'kov); GRACHEV, A.P.; VOVCHENKO, D.P., kand. biolog. nauk; CHEMODANOVA, Ye.V., kand. sel'skokhoz. nauk; KALINICHENKO, A.N.; PETRUSHOVA, N.I., kand. sel'skokhoz. nauk; OVCHARENKO, G.V.; FLORINSKAYA, G.N.; DROZDOVSKIY, E.M.; DROZDOVSKIY, E.M.; MATLASHENKO, Ye.V., aspirantka

Brief news. Zashch. rast. ot vred. i bol. 9 no.7:50-53 '64. (MIRA 18:2)

1. Dal'nevostochnaya opytnaya stantsiya Vsesoyuznogo nauchno-issledovatel'skogo instituta rasteniyevodstva (for Grachev). 2. Mleyevskaya opytnaya stantsiya sadovodstva, Cherkasskaya oblast' (for Vovchenko). 3. Velikolukskiy sel'skokhozyaystvennyy institut (for Chemodanova). 4. Altayskaya opytnaya stantsiya sadovodstva, Barnaul (for Kalinichenko). 5. Nikitskiy botanicheskiy sad (for Petrushova, Ovcharenko). 6. Moldavskiy institut sadovodstva, vinogradarstva i vinodeliya, Kishinev (for Florinskaya). 7. Nauchno-issledovatel'skiy zonal'nyy institut sadovodstva nechernozemnoy polosy (for Drozdovskiy). 8. Tadzhikskiy nauchno-issledovatel'skiy institut sel'skogo khozyaystva (for Matlashenko).

VOVCHENKO, D.P., kand. biolog. nauk

Rosette disease of apple. Zashch. rast. ot vred. i bol. 9 no.12:19-20 '64. (MIRA 18:4)

1. Mlayevskaya opytnaya stantsiya sadovodstva imeni L.P. Simirenko, Cherkasskaya oblast'.

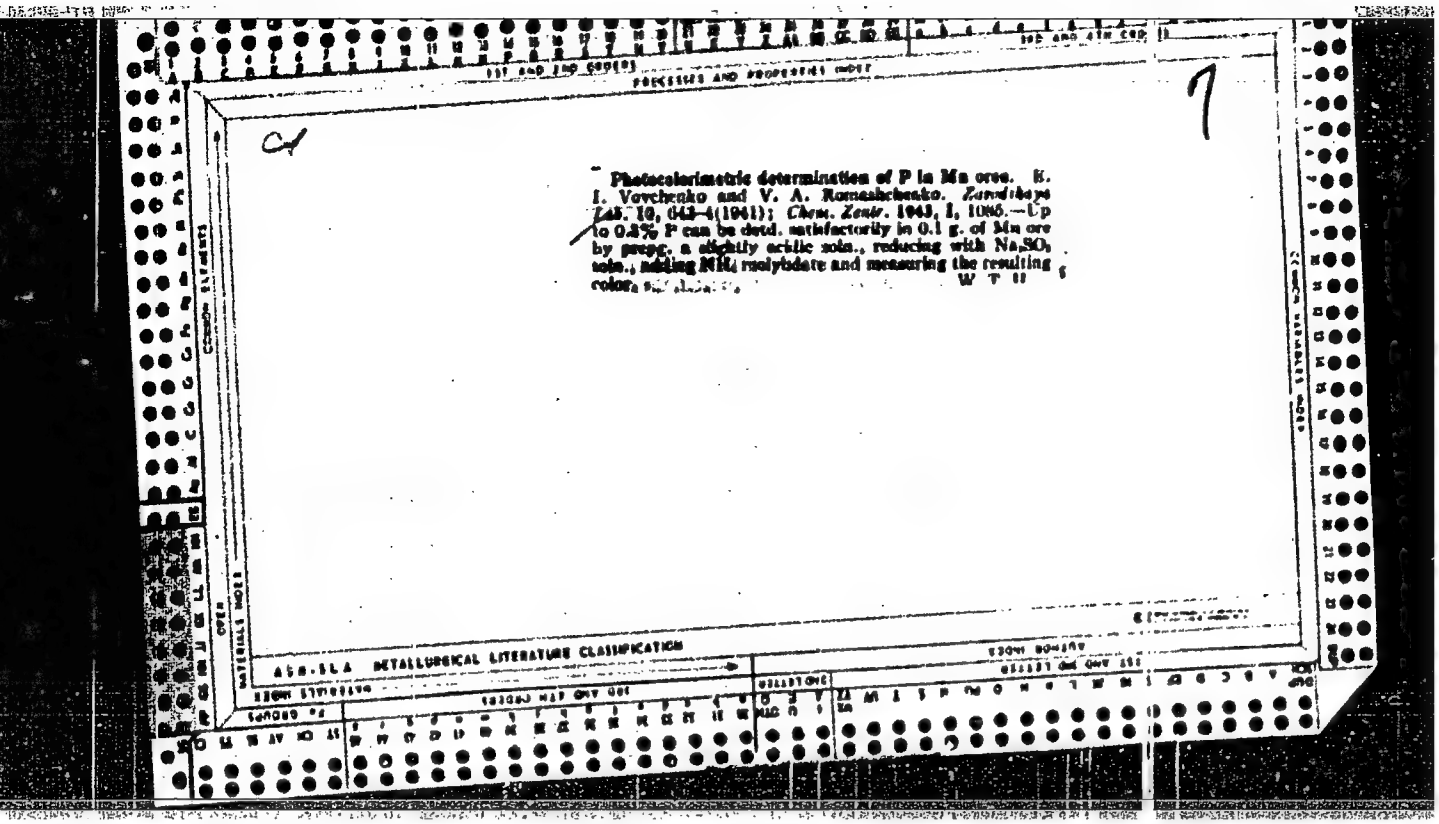
SAVKOVSKIY, P.P., nauchn. sotr.; ISAYEVA, Ye.V., nauchn. sotr.; OLIFER, A.V., nauchn. sotr.; SHCHERBAKOV, V.V., nauchn. sotr.; POVZUN, I.D., nauchn. sotr.; MASLO, Ye.M., nauchn. sotr.; KRYLOVA, A.S., nauchn. sotr.; MATVIYEVSKIY, A.S., nauchn. sotr.; VASIL'KOVA, A.K., nauchn. sotr.; VOVCHENKO, D.P., nauchn. sotr.; BOGDAN, L.I., nauchn. sotr.; GROTTE M.G., nauchn. sotr.; CHEPUR, N.D., red.

[Pests and diseases of fruit and berry plants; a manual] Vreditoli i bolezni plodovo-iagodnykh kul'tur; spravochnik. Kiev, Naukova dumka, 1965. 287 p. (MIRA 18:9)

VOVCHENKO, D. P.

VOVCHENKO, D. P. -- "Brownness of Pear Seedlings and Measures to Combat It in the Forest-Steppe Zone of the Ukrainian SSR." Ukrainian Sci Res Inst of Fruit Growing. Mleyev Sci Res Station of Fruit Growing. Mleyev, 1955. (Dissertation for the Degree of Candidate of Agricultural Sciences.)

SO: Knizhnaya letopis', No. 4, Moscow, 1956



Photocolorimetric determination of P in Mn ores. K. I. Vovchenko and V. A. Romashchenko. *Zavodskaya Lab.* 10, 643–4(1941); *Chem. Zentr.* 1943, I, 1086.—Up to 0.8% P can be detd. satisfactorily in 0.1 g. of Mn ore by prepg. a slightly acidic soln., reducing with Na_2SO_3 soln., adding NH_4 molybdate and measuring the resulting color.

W T H

STAKAN, G.A.; SOSKIN, A.A.; VOVCHENKO, F.Ya.

Heritability of some characters in fine-wool sheep. Biul. MOIP. Otd. biol. 68 no.6:122-132 N-D '63. (MIRA 17:1)

STAKAN, G.A.; SOSKIN, A.A.; VOVCHENKO, F.Ya.

Method of rating herd rams by the quality of the progeny. Izv. Sib. otd. AN SSSR no.11:103-113 '61. (MIRA 1:1)
(Rams)

STAKAN, G.A.; SOSKIN, A.A.; VOVCHENKO, F.Ya.

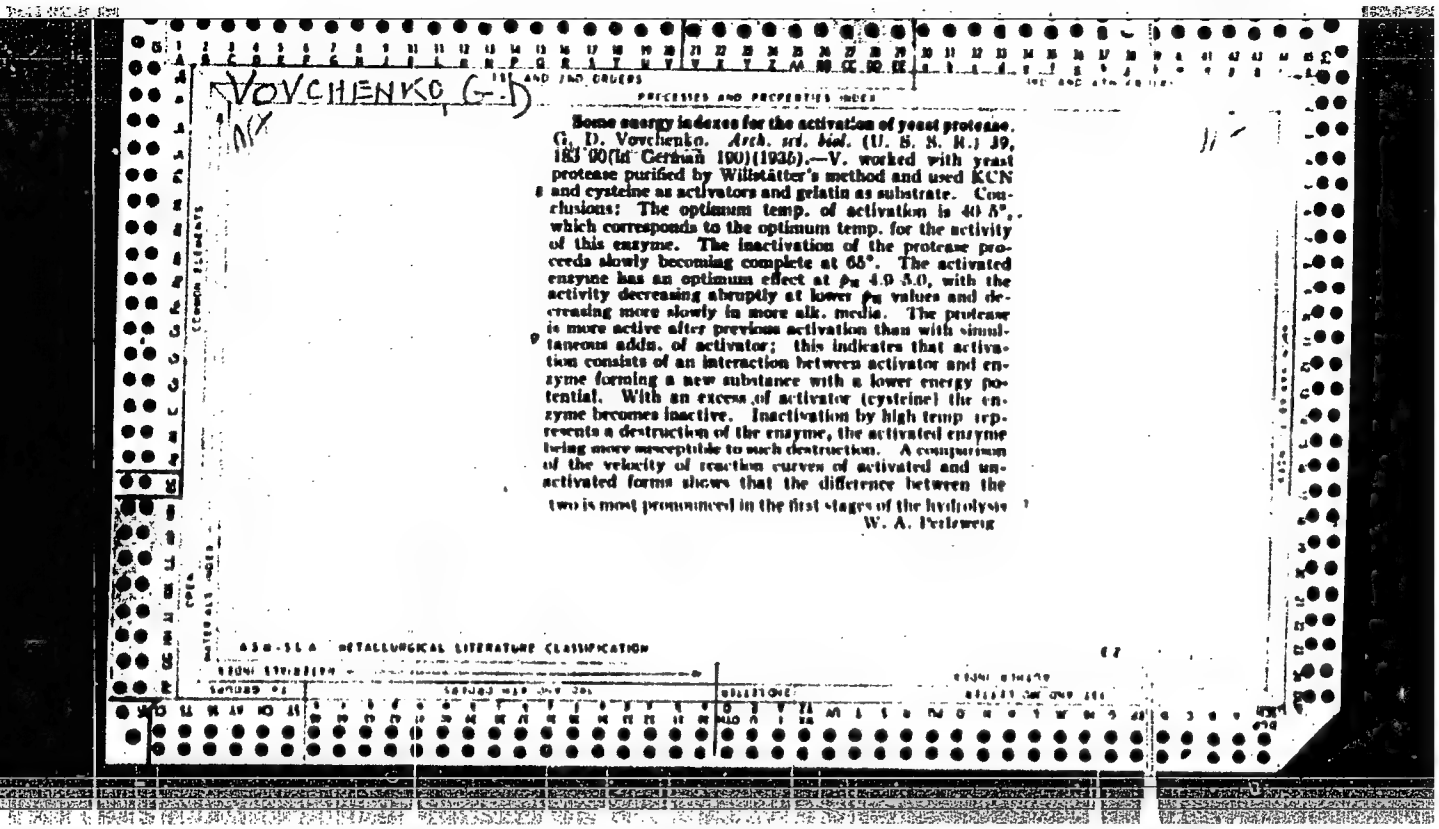
Heritability of live weight in fine-wool sheep. Izv. SO AN SSSR no.8 Ser. biol.-med. nauk no.2:109-116 '64 (MIRA 18:1)

1. Institut tsitologii i genetiki Sibirskogo otdeleniya AN SSSR, Novosibirsk.

VOVCHENKO, G. D.

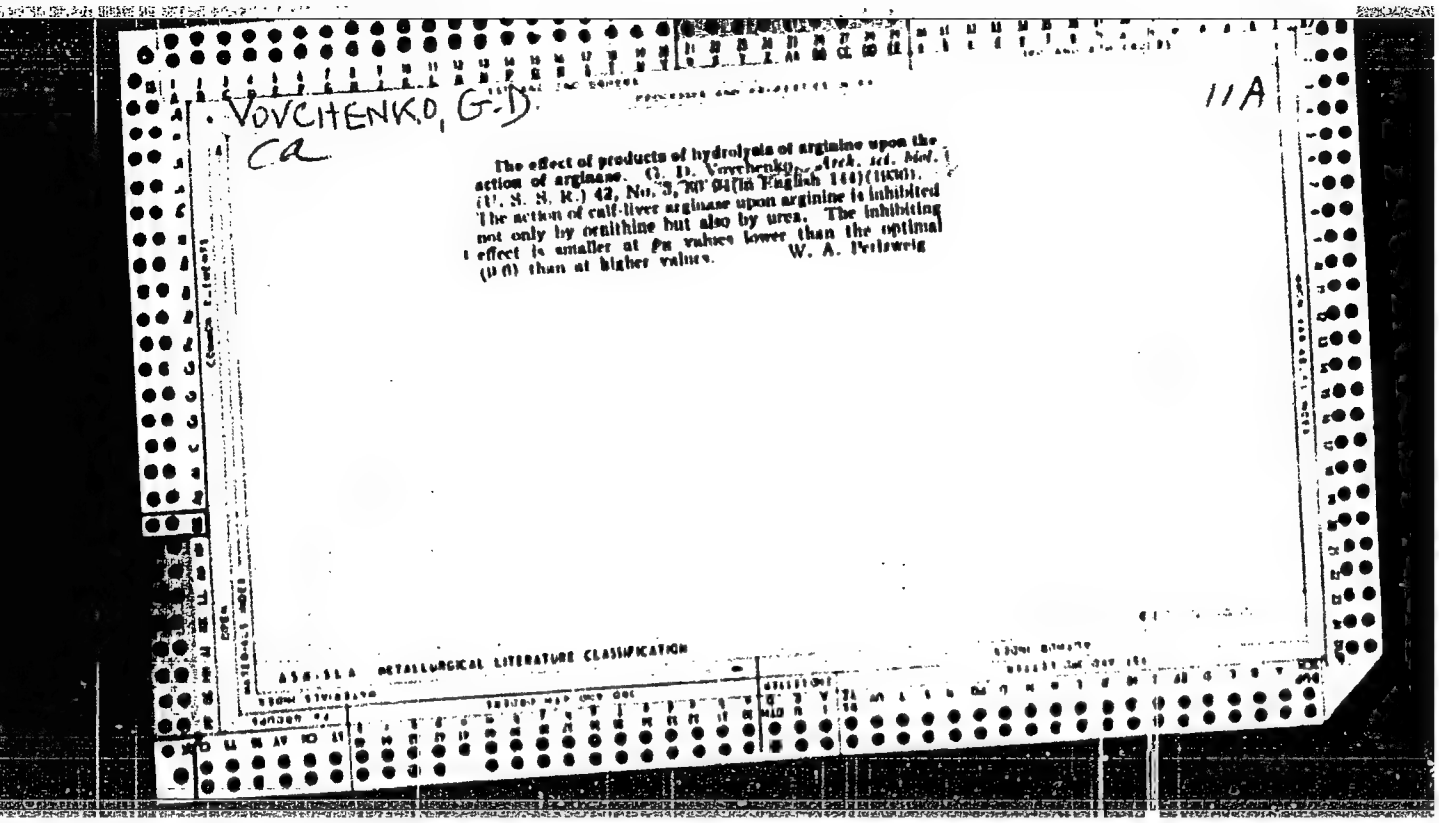
S. V. Vasil'ev and G. D. Vovchenko - "The action of nitrogen tetroxide on ethyl cinnamate." (p. 1236)

SO: Journal of General Chemistry, (Zhurnal Obshchei Khimii), 1920, Vol. 20, No. 7.



VOVCHENKO, G. D.

Some energy indexes for the activation of yeast protease. G. D. Vovchenko. *Arch. sci. biol.* (U. S. S. R.) 39, 183-90(Id German 190)(1936).—V. worked with yeast protease purified by Willstätter's method and used KCN and cysteine as activators and gelatin as substrate. Conclusions: The optimum temp. of activation is 40 5°, which corresponds to the optimum temp. for the activity of this enzyme. The inactivation of the protease proceeds slowly becoming complete at 65°. The activated enzyme has an optimum effect at p_H 4.9 5.0, with the activity decreasing abruptly at lower p_H values and decreasing more slowly in more alk. media. The protease is more active after previous activation than with simultaneous addn. of activator; this indicates that activation consists of an interaction between activator and enzyme forming a new substance with a lower energy potential. With an excess of activator (cysteine) the enzyme becomes inactive. Inactivation by high temp represents a destruction of the enzyme, the activated enzyme being more susceptible to such destruction. A comparison of the velocity of reaction curves of activated and unactivated forms shows that the difference between the two is most pronounced in the first stages of the hydrolysis.
W. A. Perlzweig



VOVCHENKO, G. D.

Ca

11A

The effect of products of hydrolysis of arginine upon the action of arginase. G. D. Vovchenko. *Biokhimiya* (U. S. S. R.) 42, No. 3, 507-9 (in English 144) (1950). The action of calf-liver arginase upon arginine is inhibited not only by ornithine but also by urea. The inhibiting effect is smaller at p_H values lower than the optimal (p_H 9) than at higher values. W. A. Perlzweig

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

VOVCHENKO G. D.

PA 44/49T63

USSR/Medicine - Drugs, Injections Jan/Feb 49
Medicine - Drugs, Supply

"Production of High-Quality Solutions for Injections," G. D. Vovchenko, A. G. Natradze, S. I. Maymind, Ye. N. Tsitrin, All-Union Sci Res Chemicopher Inst imeni S. Ordzhonikidze, 6 pp

"Med Prom SSSR" No 1

Output of solutions in ampoules for injection is increasing from year to year, with 1948 plan figures as follows: up to 5 cc ampoules 168 million, 5 - 10 cc, 13 million, and 20 - 50 cc 5 million.

44/49T63

USSR/Medicine - Drugs, Injections Jan/Feb 49
(Contd)

Above outputs are insufficient to satisfy demand. Solutions of 46 different kinds are prepared in ampoules. Discusses measures to increase quantity and quality of production. Mentions following factories: Imeni Semashko, Moscow No 9, Tbilisi, Riga No 6, Novosibirsk Oblast Dept of GAPU, and Stavropol Dept of GAPU.

44/49T63

CA

10

Mechanism of the electrolytic reduction of 3-amino-4-hydroxybenzenearsonic acid. S. V. Vasil'ev and G. D. Vovchenko. *Vestnik Moskov. Univ.* 5, No. 3, *Ser. Fiz.-Mat. i Estest. Nauk*, No. 2, 73-80 (1950).—The reductions were carried out in a divided cell with porous porcelain cup separator, a C anode, and a Hg cathode. The best results are obtained with a catholyte of 12 g. arsonic acid in 100 ml. 3 *N* HCl, at 30-40°, c.d. 3 amp./sq. dcm., and concd. HCl anolyte. Aliquots (2 ml.) were used as controls, and when titration required 7.9 ml. 0.1 *N* iodine soln. the reaction mixt. was worked up by filtration, acidification with 50 ml. concd. HCl, and filtration; the *3-amino-4-hydroxyphenylarsenic oxide-HCl*, so obtained decomp. 147° (from EtOH); *free base* (I) decompd. 133°. If the reduction is continued, the mixt. becomes viscous, then fluid once again; continuation until a 2-ml. aliquot requires 17.5 ml. 0.1 *N* iodine for titration, followed by addn. of 40 ml. concd. HCl, gave from 100 ml. of soln. 2.2 g. *3,3'-diamino-4,4'-dihydroxyarsenobenzene* (II). Continuation of the reduction until the titer was 20.7 ml., followed by neutralization with $NaHCO_3$, gave 1.3 g. *3-amino-4-hydroxyphenylarsine* (III), yielding a stable solid HCl salt (from aq. EtOH-HCl). Letting equal wts. of III and I stand 6 hrs. in 3 *N* HCl gave on acidification II, isolated as the di-HCl salt dihydrate. Similar reaction of III with the arsonic acid gave the same product; the filtrate with concd. HCl yields a colorless ppt., which with $NaHCO_3$ yields a solid, m. 130-4°; crystd. from EtOH, the *3-amino-4-hydroxyphenyldichloroarsine-HCl* decomp. 146-8°. The electrolytic reduction of the arsonic acid thus goes through the following stages: $RAsO_3$, $(RAsOH)_2O$, $(RAs)_2O$, RAs:AsR, $(RAsH)_2$, and $RAsH_2$. G. M. Kosolapoff

1957

CA

Action of nitrogen dioxide on ethyl cinnamate. S. V. Vasil'ev and G. D. Voyshenko (M. I. Lomonosov Fine Chem. Tech., Moscow). *Zhur. Obshchei Khim.* (*J. Gen. Chem.*) 20, 1236-45(1950).—The double bond of Et cinnamate (I) readily adds both gaseous and liquid $(NO_2)_2$. Satn. of 30 g. I in 75 ml. dry Et_2O at 0° with N_2O_4 (64 g.) over 10 hrs., filtration after standing overnight, and evapn. gave 49.3 g. oil (II) and 4.5 g. cryst. product (III); the former was a bright yellow oil, d_4^{15} 1.3001, n_D^{15} 1.4092 (45° seems to be a misprint), which lost N oxides on storage and contact with moisture, while heating with dil. H_2SO_4 yielded *nitrohydroxyhydrocinnamic acid*, a yellow oil, obtained only in crude state, and heating with alkali also severed one N atom. The results indicate that the II was a mixt. of *1,2-addn. products: nitro-nitrite* and *dinitro deriv.*; in addn., reduction with Sn-HCl yielded a mixt. of *diamino-* and *hydroxyaminohydrocinnamic acids*, decomp. 302°, yielding the corresponding *mixed HCl salts*, m. 143-9.5°. III was blue in color, m. 132.5°, decomp. 162°, and its chem. behavior indicated the structure $PhCH(NO)CH(ONO_2)CO_2Et$; its reduction by Sn-HCl gave *aminohydroxyhydrocinnamic acid* (IV), does not m. 328°; *HCl salt*, m. 167.70°. IV is probably the β-amino-α-hydroxy isomer, as the *α-amino-β-hydroxy analog*, prepd. by reduction of the N_2O_4 adduct to cinnamic acid, m. 318-17°, and forms an *HCl salt*, m. 148-50°. Addn. of 27 g. N_2O_4 to 15 g. I in Et_2O over 5 hrs. at 0°, followed by standing overnight, as above, gave 7.9 g. oil, identical with II, and 7.6 g. solid, repd. into 1.2 g. blue plates, m. 132-3° (identical with III), which on 7 months' storage lost color and changed to the *corresponding nitro-nitrate* (V), m. 151-2°; the 2nd solid (6.4 g.), isolated by EtOH leaching, was a colorless solid, m. 151-2°, identified as V; its reduction by Sn-HCl gave IV, does not m. 325°.

G. M. Kosolapoff

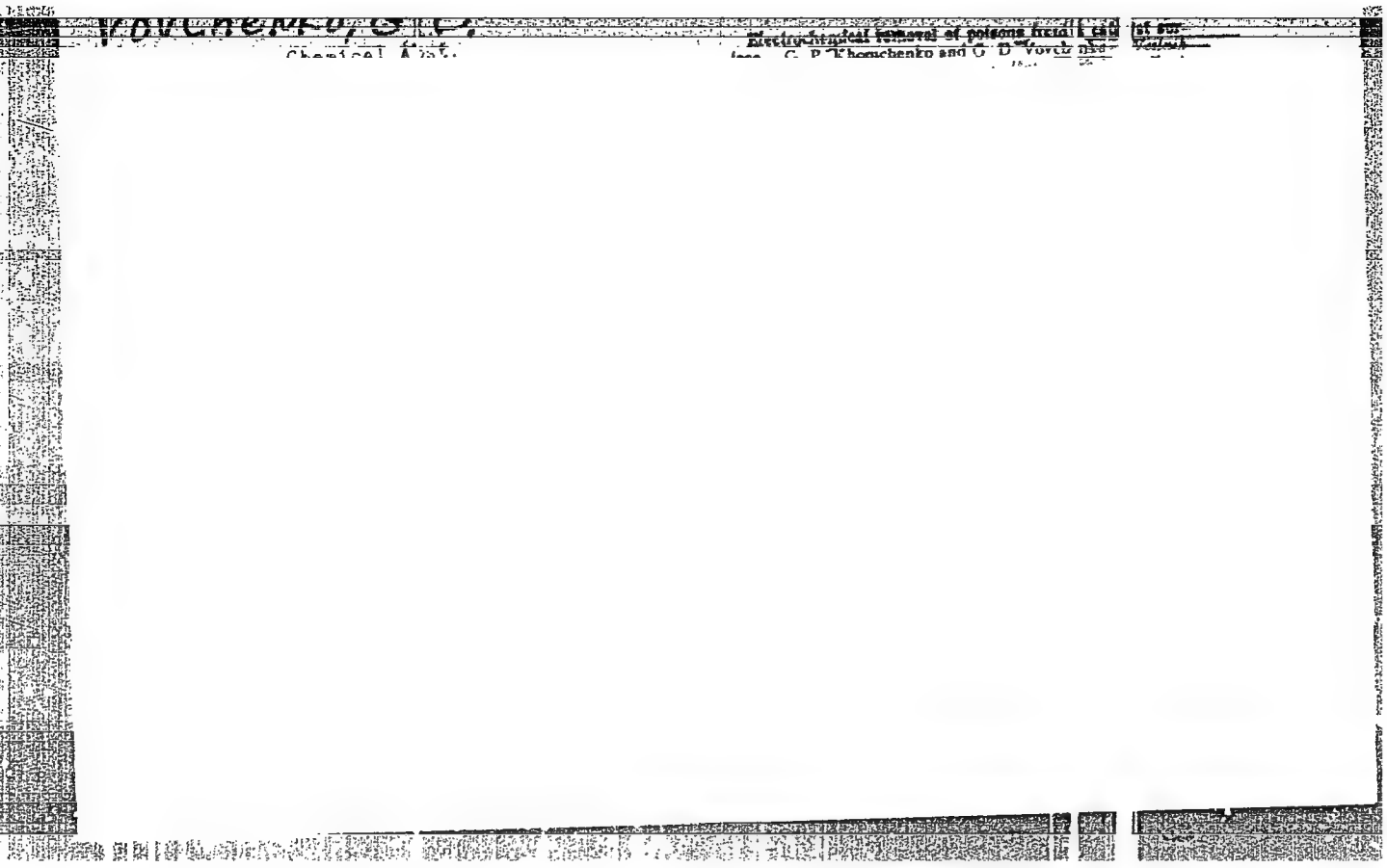
CA

10

The action of nitrogen peroxide on the ethyl ester of cinnamic acid. S. V. Vasil'ev and G. D. Yavshenko. *J. Gen. Chem. U.S.S.R.* 20, 1283-92(1950)(Engl. translation).—See *C.A.* 45, 1541*e*.
R. M. S.

1. VOVCHENKO, G. D.
2. USSR (600)
4. Proteins
7. Sulfhydryl groups in a protein molecule. Vest.Mosk.un No. 10 - 1952.

9. Monthly List of Russian Accessions, Library of Congress, March 1953. Unclassified.



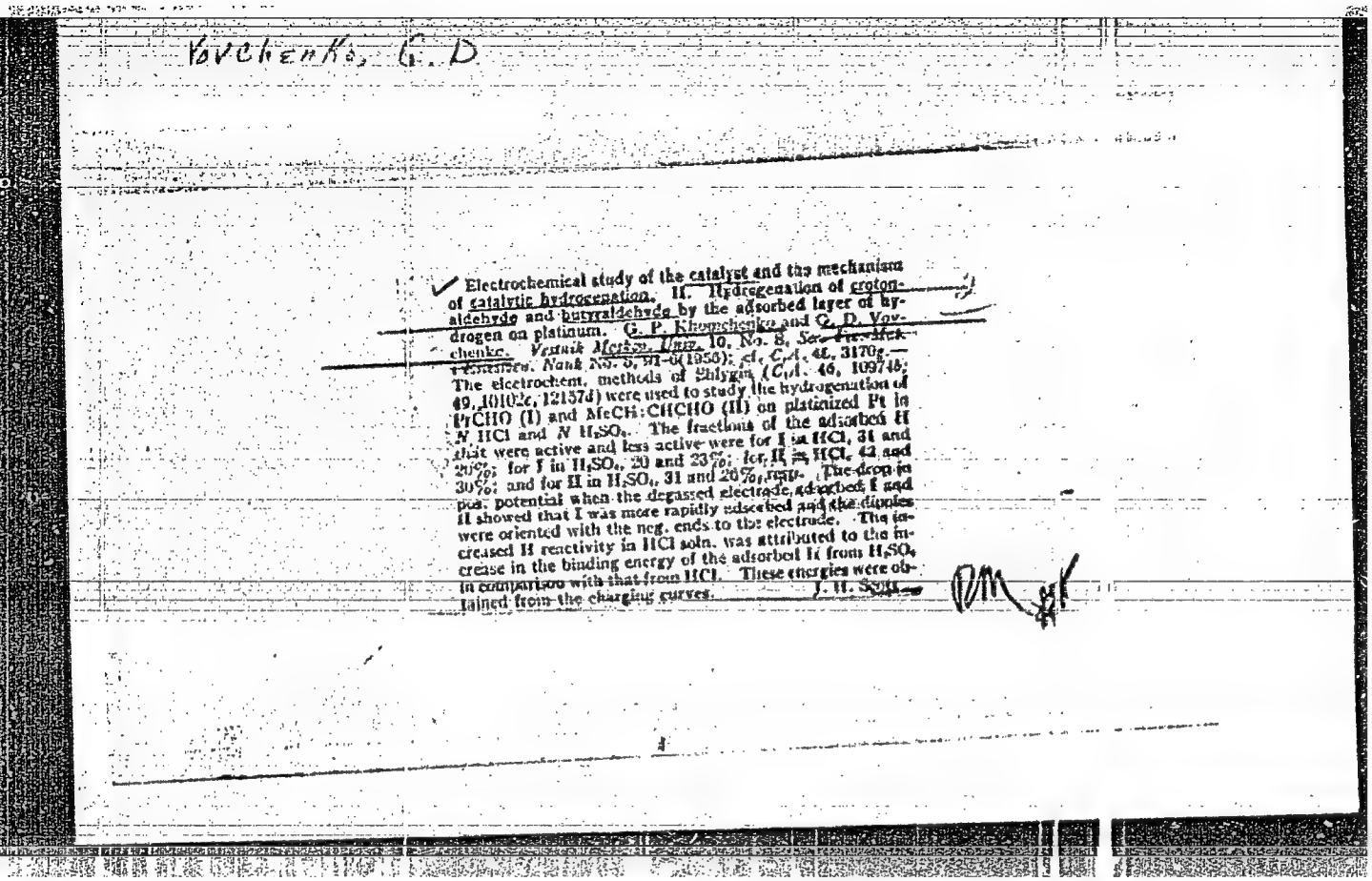
PETROVSKIY, I.G.; VOVCHENKO, G.D.; SALISHCHEV, K.A.; SERGEYEV, E.M.; MOSKVITIN, V.V.; SHETENSKIY, L.V.; GEL'FOND, A.D.; GOLUBEV, V.V.; ALEKSANDROV, P.S.; SOBOLEV, S.L.; BAKHVALOV, S.B.; GOUBALOV, P.M.; KREYNES, M.A.; MYASNIKOV, P.V.; ZHIDKOV, N.P.; GAL'PERN, S.A.; ZHEGALKINA-SLUDSKAYA, M.A.

Vsevolod Aleksandrovich Kudriavtsev; obituary. Vest.Mosk.un. 8 no.12:129 D '53. (MLR 7:2)
(Kudriavtsev, Vsevolod Aleksandrovich, 1885-1953)

VOVCHENKO, G., professor.

The palace of Soviet science. Biul. VVNR no.5-6:77-81 S-O '54.
(MLRA 7:9)

1. Prorektor Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova.
(Moscow university)



Vovchenko, G. D

✓ Electrochemical study of the catalyst and the mechanism of catalytic hydrogenation. II. Hydrogenation of crotonaldehyde and butyraldehyde by the adsorbed layer of hydrogen on platinum. G. P. Khomchenko and G. D. Vovchenko. *Vestnik Moskov. Univ.* 10, No. 8, *Ser. Fiz.-Mat. i Estestven. Nauk* No. 5, 91–6(1955); cf. *C.A.* 48, 3170g. The electrochem. methods of Shlygin (*C.A.* 46, 10974i; 49, 10102c, 12157d) were used to study the hydrogenation of PrCHO (I) and MeCH:CHCHO (II) on platinized Pt in *N* HCl and *N* H_2SO_4. The fractions of the adsorbed H that were active and less active were for I in HCl, 31 and 20%; for I in H_2SO_4, 20 and 23%; for II in HCl, 42 and 30%; and for II in H_2SO_4, 31 and 20%, resp. The drop in pos. potential when the degassed electrode adsorbed I and II showed that I was more rapidly adsorbed and the dipoles were oriented with the neg. ends to the electrode. The increased H reactivity in HCl soln. was attributed to the increase in the binding energy of the adsorbed H from H_2SO_4 in comparison with that from HCl. These energies were obtained from the charging curves. J. H. Sott

VOVCHENKO, G. D.

USSR/ Scientific organization - Higher education

Card 1/1 Pub. 124 - 1/39

Authors : Vovchenko, G. D., Prof., and Saltanov, Yu. A.

Title : The 200th anniversary of the Moscow University

Periodical : Vest. AN SSSR 25/5, 3 - 15, May 1955

Abstract : Some facts regarding the founding of the Moscow M. V. Lomonosov University and subsequent history are presented, with particular stress on the supposedly political significance of this institution's activity. Brief references are made to the organization and work of the various departments of the University. The Academy of Sciences of the USSR, at which the first professors of the University were trained, is regarded as a parent organization and the subsequent close cooperation between the Academy and the University is discussed.

Institution : .....

Submitted : .....

VOVCHENKO, G.D., redaktor

[Moscow University; a brief sketch of its departments and specialties] Moskovskii universitet; kratkii ocherk fakul'tetov i spetsial'nostei dlia postupaiushchikh v MGU. Pod red. G.D.Vovchenko. [Moskva, 1956. 50 p. (MLRA 9:11)

1. Moscow. Universitet.
(Moscow Universitet)

VOVCHENKO, G.D.

KHOMCHENKO, Gavriil Platonovich; VOVCHENKO, G.D., prof., red.; FLORIANOVICH, G.M., red.; GEORGIYEVA, G.I., tekhn.red.

[Manual of laboratory experiments in general chemistry] Laboratornyi praktikum po obshchei khimii. [Moskva] Izd-vo Mosk.univ., 1957. 181 p. (MIRA 10:12)

(Chemistry--Laboratory manual)

VOVCHENKO, G.D.

AUTHOR: Vovchenko, G.D., Professor, and Saltanov, Yu.A. 3-6-13/29

TITLE: The Problems Raised by "Letter И-100" to be Solved More Actively (Aktivneye reshat' zadachi, postavlennyye "Pis'mom И - 100"). Some Results and Prospects. (Nekotoryye itogi i perspektivy).

PERIODICAL: Vestnik Vysshey Shkoly, 1957, # 6, pp 58 - 62 (USSR)

ABSTRACT: The article contains a review of the results gained in realizing the basic principles of the instructive letter of the USSR Ministry of Higher Education of 15 September 1956, at the faculties of natural science of the Moscow University (Moskovskiy Universitet). The staffs of these faculties have revised, and the Ministry has approved, new teaching plans on 17 specialities in order to comply with the demand that highly qualified specialists be trained. New courses have been introduced which reflect the latest achievements in science. Courses are held in nuclear physics (102 hours) and atomic physics (86 hours) for all students of the Faculty of Physics. Laboratory work is conducted on radiometric methods (72 hou·) at the Faculty of Chemistry. Instead of state examinations, the students of all faculties of natural science, except the Mechanico-Mathematical Faculty, have to

Card 1/3

3-6-13/29

The Problems Raised by "Letter N -100" to be Solved More Actively. Some Results and Prospects.

defend their graduation theses before a session of the State Examination Commission. This increased the demands placed on the graduates. Though experience has shown that the new plans still contain some deficiencies as a whole, they can be regarded as satisfactory. The new plans mean a reduction in lecturing hours and increased time for practical training. The article also deals with the plans for a further realization of the recommendations of the ministerial letter, and suggests that methodical sections be organized at the University Council on Natural Sciences. It will be their object to direct the methodical work of the faculties, to study the experience of the individual chairs and make certain that the plan of methodical work is carried out by the chairs. The article then emphasizes the necessity for a considerable improvement in the study of foreign languages. It complains about the lack of textbooks, even for important courses and quotes a number of cases in this respect. The article further discusses the organization of the student's practical training pointing out that its value is also underestimated by

Card 2/3

3-6-13/29

The Problems Raised by "Letter И - 100" to be Solved More Actively. Some Results and Prospects.

Moscow University, where recently students of the Mechanico-Mathematical Faculty had no time for practical training at production sites. In May 1957, a scientific-methodical conference conducted an analysis of independent work. Among the 9 reports delivered were those from Professor Academician S.I. Vol'fkovich. He pointed out that in May-June, practical work was carried out for 7 weeks at 16 chemical, metallurgical and oil-refining plants in Moscow, Ural, Donbass, Baku, Riga and Dzerzhinsk. Reports were also delivered by Prof. Ye.A. Kuznetsov, Prof. G.D. Vilenskiy, A.Ye. Zdorov, Prof. G.K. Tushinskiy, Prof. N.P. Remezov, Dotsent A.V. Gedymin, Senior Instructor K.N. Blagosklonova and Dotsent L.Ya. Kraush. In conclusion the article states that the realization of "Letter И -100" has only begun at Moscow University. Much organizational and methodical work must still be done.

ASSOCIATION: Moscow State University imeni M.V. Lomonosov (Moskovskiy Gosudarstvennyy Universitet imeni M.V. Lomonosova)

AVAILABLE: Library of Congress
Card 3/3

VOVCHENKO, G.D.

AUTHORS: Vovchenko, G.D., Professor
Kolesnikov, A.G., Professor

26-10-6/44

TITLE: Contribution of the Scientists of the Metropolitan University (Vklad uchenykh stolichnogo universiteta)

PERIODICAL: Priroda, October 1957, No 10, pp 49-52 (USSR)

ABSTRACT: Scientists of the Moscow State University contribute to the International Geophysical Year by working on 19 different scientific problems. Members of the faculty of physics study the composition of atmospheric ozone in different altitudes, observe the aurora borealis from special stations in the Arctic and study the structure of the ionosphere. Important research work is conducted in the field of microseisms. As such observations require very sensitive appliances, the faculty of physics had to develop special measuring devices: a sea turbulimeter and a radioactive turbulimeter, the first of their kind in the world. The study of cosmic rays is conducted by the Institute of Physics at Moscow University. The Institute of Astronomy imeni P.K. Shternberg in cooperation with the Time Service of the Institute are collecting data that will permit better and more exact determination of time. Astrophysicists of the Institute conduct observations of the

Card 1/2

sun and the various changes on its surface. The observatory at Alma-Ata is performing observations of zodiacal lights and counter radiances under the supervision of the Institute. The faculty of geography has dispatched three teams, one for the study of meteorological problems, the other two to investigate glaciers. An expedition to the Pacific Ocean is being prepared by the faculty of geology for research in the area of Kamtshatka and the Kuril Islands.
The article contains one photo.

ASSOCIATION: Mosoow State University Imeni M.V. Lomonosov (Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova)

AVAILABLE: Library of Congress

Card 2/2

AUTHORS: Vovchenko,G.D., Gavrilov,N.I.,and Akimova,L.N. SOV/55-58-1-1/33

TITLE: The Albumen Problem From the Point of View of Modern Sciences (Problema belka v svete nekotorykh dannykh sovremennoy nauki)

PERIODICAL: Vestnik Moskovskogo universiteta, Seriya fiziko-matematicheskikh i yestestvennykh nauk, 1958, Nr 1, pp 3-22 (USSR)

ABSTRACT: The paper gives a detailed survey of the modern state of research of albumen. The albumen problem is denoted to be the central question of philosiphy and natural sciences, where numerous extracts from the "dialectics of the nature" of Engels as well as several citations of Lenin shall certify this point of view. In connection with the political tendency of the article is the special consideration of the Soviet research of albumen. The authors mention: Zelinskiy,N.D. and his school (chemistry of amino acids and other products of the albumen hydrolysis), Gavrilov,N.I. (form [illegible] of globular albumens), Kargin,V.A., Vilenskiy,V.A. (physical chemistry of albumens), Belozerskiy,A.N., Prokof'yev,M.A., Manoylov,S.Ye.(nucleoproteids), Kedrovskiy, B.V., Rumyantsev,A.V., Nasonov,D.N. (morphology and physiology of the cellular structure

Card 1/2

of albumens), Engel'gardt,V.A., Lyubimova,M.N.(demounting of albumen in muscles), Pavlov,I.P., Danilevskiy,A.Ya., Bakh,A.N., Blagoveshchenskiy,A.V. (ferments and their synthesis), Pryanishnikov D.N. (change of nitrogen of plants), Orekhovich,V.N. (cellular albumen), Konikova,A.S., Kritsman,M.G. (changes of albumen as a carrier of life).
There are 48 references, 31 of which are Soviet, 2 Swiss, 8 German, 5 American, 1 Italian, and 1 Swedish.

ASSOCIATION: Laboratoriya khimii belka imeni akad. N.D.Zelinskogo (Laboratory of Albumen Chemistry imeni Academician N.D.Zelinskiy)

SUBMITTED: August 29, 1957

VOVCHENKO, G.D.

AUTHOR: Vovchenko, G.D., Professor, Prorector 25-58-4-6/41

TITLE: Following the IGY Program (Po programme MGG)

PERIODICAL: Nauka i Zhizn', 1958, Nr 4, pp 17-18 (USSR)

ABSTRACT: The Moscow State University (MGU) is participating in the work of the IGY. Its Physics Faculty has the following tasks: 1) investigation of the ozone content of the atmosphere; 2) observation of polar light; 3) observation of the ionosphere, including the formation and decomposition of ionospheric layers; 4) absorbtion of radiowaves by the ionosphere and investigations of its non-homogeneous structure; 5) distances between ionospheric layers and the speed of chaotic movements in the ionosphere; 6) determination of typhoon, storm and cyclone locations over the Indian Ocean by microseismic waves, with the aid of specially designed instruments and improved methods; 7) an investigation, with the aid of unique instruments, of the speed of transfer of heat and radioactive elements between the surface and the bottom of the sea, due to water movement; 8) an investigation of cosmic rays in an automatic underground station situated at a depth of 60 m. The MGU Astronomical In-

Card 1/2

stitute is also investigating the Earth's irregular rate of rotation, continent movements, solar activities and radiation lines in the Solar spectrum. Latitudinal oscillations and the movement of geographic poles will be observed from a special station. The Geography Faculty is planning three expeditions to the East Pamir, the El'brus and the Khibiny mountains, to carry out meteorological and glaciologic observations. It will also carry out investigations of the Earth crust in the Pacific. There are 2 photographs.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova (The Moscow State University imeni Lomonosov)

AVAILABLE: Library of Congress

Card 2/2 1. Physics 2. Ionosphere--Study and teaching 3. Meteorology

22(1)
30(1)

SOV/3-59-4-36/42

AUTHORS: Vovchenko, G.D., Professor; Saltanov, Yu.A.

TITLE: The Scientists of the Moscow University - to Agriculture

PERIODICAL: Vestnik vysshey shkoly, 1959, Nr 4, pp 81-85 (USSR)

ABSTRACT: For the last 5 years the Departments of Biology and Soil, Geography and Economy of Moscow University have conducted important research work which has helped to raise agricultural production. The author tells of these researches and of the prospects of their development. The basic task of Moscow University is to train specialists. During the last 5 years, 440 of its graduates were assigned to work in agriculture. Among them were 265 soil scientists working at present in selection stations, melioration expeditions, scientific-productional agricultural institutions, etc. The greatest work in the field of agriculture is being done by the Department of Biology and Soil. The importance of the research in respect to dividing the USSR into districts according to natural-historical aspects is pointed out. This is a great

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comprehensive work of dividing the country into soil and geobotanical districts, the oceans and seas according to biological aspects. Ten universities, 5 agricultural institutes and academies of sciences of Union republics participate in it. The general scientific-methodological guidance is placed on the Moscow university. The working out of all these problems will permit to issue scientifically based recommendations for the distribution, specialization and rational utilization of various branches of agriculture. The 21st CPSU Congress raised the demand for an utmost utilization of soils. But as the arable kolkhoz and sovkhoz land differs in the various natural zones, it is necessary to register the lands and to determine the prospective productivity of the soil. The basic form of such registration is to draw up large-scale soil maps giving the characteristic of the soils and indicating the measures required for raising fertility. In 1958, University scientists completed the collection of field materials in 5 oblasts of the Central Non-Black-Soil Zone and drew up a map of soil districts of all the 11 oblasts

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of this zone. At present, an analysis of the soils, collected by the expedition, is being carried out. The drawing up of a map of the soil districts of the European part of the USSR in a scale of 1 : 1,500,000 is being completed. Among the important works accomplished lately by the Department of Biology and Soil is the examination of 1.5 million hectares of virgin and long-fallow lands in the Kazakh SSR for the purpose of selecting areas for establishing new sovkhozes. This work was carried out in the Kustanay Oblast in 1958. The scientific workers also study the biology of development of corn and methods for its cultivation in the Moscow Oblast . The results proved that corn can be raised under certain condictions even in unfavorable years. In the field of animal husbandry, the research of the Chair of Genetics and Selection has shown the great practical importance of acclimatizing the Jersey strains of cattle in the Moscow district, and interbreeding this kind with those bred in the USSR for the purpose of obtaining higher yields of milk with a higher content of fat. The Department of Biology and Soil has also worked out methods for a joint

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sowing of winter and spring wheat in spring. This method, when applied on the fields of the kolkhozes of the Shchelkovo District, saved labor in ploughing and resulted in a considerable crop increase. Among other works performed by this department the author mentions soil and geobotanical investigations of the Kama, Belaya and Vyatka River basins in connection with the planned construction of the Lower Kama Hydroelectric Power Station. In cooperation with the AS USSR the chairs of the Department have studied the soil of the district between the rivers Zeya and Bureya, where the main agricultural raw material basis of the Far East is being established. The author also points out the work of the Department of Geography. As a result 200 kolkhozes and sovkhozes have been supplied with maps describing the natural and economic conditions of the oblasts. He further mentions the activity of the Economic Department in calculating the cost price and establishing the profitableness of kolkhozes in the Ryazan' Oblast . The Chair of Chemical Technology is developing the technology of producing fertilizers, in-

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secticides and fungicides. In cooperation with other institutions the Chemical Department has been seeking for means protecting animals from bloodsucking insects and ticks. Over 300 preparations have been synthesized. One of them - Kyuzol - has successfully passed productional and laboratory tests and been admitted for use on a broad scale. Tests have proved that "Kyuzol" and analogical agents can also be used for protecting domestic animals from blood-sucking flies and mosquitoes of the diptera order. The Tadzhikskaya SSR is the only place in the USSR where long-fibered cotton is growing. Cultivation of this valuable sort of cotton needs artificial irrigation and for this purpose big and complicated engineering constructions. In this connection the Geological Department is studying the sagging and suffusion ("suffoziya") phenomenon which often destroy the constructions and the irrigated land. After having quoted all the performed positive work, the author expresses dissatisfaction on the activity of several of the leading chairs of the Department of Biology and Soil and sets forth the problems on which the university will work

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in the forthcoming 7 years. These include measures to increase the fertility of newly cultivated land. It will continue to develop the genetic foundations of the selection of agricultural plants and animals in the light of Michurin's teachings. The future plans also envisage that the work of dividing the USSR into districts according to natural and historical aspects be finished and that recommendations on the specialization of agriculture be furnished. The article contains a number of other tasks which the University intends to fulfill within the 7-Year Plan. There are 2 Soviet references.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova (Moscow State University imeni M.V. Lomonosov).

S/055/59/000/06/23/027
B004/B002

AUTHORS: Khomchenko, G. P., Pletyushkina, A. I., Vovchenko, G.).

TITLE: The Electrochemical Investigation of Catalysts and the Mechanism of Catalytic Hydrogenation. IV. Hydrogenation and Adsorption of Allyl Benzene on a Platinum Catalyst

PERIODICAL: Vestnik Moskovskogo universiteta. Seriya matematiki, mekhaniki, astronomii, fiziki, khimii, 1959, No. 6, pp 186 - 193

TEXT: The authors used the method described in Refs. 1 and 2. On the electrode 0.2g of finely disperse platinum is deposited from a 2% solution of platinum chloride. The actual platinum surface was 15,000 cm^2, the adsorption capacity of hydrogen was $2.4.10^{-5}$ gram-atoms, with 74% of the surface being covered by H_2. The electrolyte used was 0.1 N H_2SO_4. Fig. 1 shows the reaction with 0.5 mole/l of allyl benzene. The potential shift is only low. Hence, only a fraction of the H_2 adsorbed on the electrode enters into reaction. If N_2 passes through the solution, the hydrogenation is accelerated due to more thorough mixing. After the occurrence of the steady potential, the hydrogen which did not enter into

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reaction by anode polarization was found to be 33.3% (Fig. 2). Only hydrogen with a low bond energy (up to 0.1 v) was reactive. At present, the role of the bond energy of hydrogen during hydrogenation is being investigated by the author by examining the influence of catalyst poisons. From the data of Figs.1,2 the kinetics of the distance between H_2 and catalyst during hydrogenation was determined. As shown by Fig. 3, hydrogen is irregularly linked with the electrode: 12.5% is in an active state and reacts quickly, 54.2% is less active, and 33.3% is inactive. The number of active centers of the catalyst was found to be $0.9.10^{18}$. As to its reactivity, allyl benzene is therefore inferior to crotonaldehyde and butyric aldehyde (Ref. 1). The investigation of the electrolytic reduction of allyl benzene yielded a low reaction rate below the potential of the hydrogen electrode (Fig. 4). Only within the range of overvoltage it is more intensive. Fig. 5 shows the potential change in the adsorption of allyl benzene of different concentrations on the degasified catalyst. A comparison of electrolytic hydrogenation of the allyl benzene adsorbed on the catalyst (Fig. 6) (for results see Figs. 1,2) yields the kinetic curve of its adsorption, and of its hydrogenation rate (Fig. 7).

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S/055/59/000/06/23/027
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Adsorption is much faster than hydrogenation and therefore cannot have a limiting effect. From the potential shift towards the anode it is concluded that allyl benzene is deposited at the positive ends of its dipole. The dipole moment μ was $0.1.10^{-18}$ absolute electrostatic units. There are 7 figures and 3 Soviet references.

ASSOCIATION: Kafedra obshchey khimii (Chair of General Chemistry)

SUBMITTED: May 25, 1959

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S/055/59/000/06/25/027
B004/B002

5.1190

AUTHORS: Tsintsevich, V. M., Khomchenko, G. P., Vovchenko, G. I.

TITLE: Processes of Adsorption and Reduction of Butinediol on a Platinum Catalyst

PERIODICAL: Vestnik Moskovskogo universiteta. Seriya matematiki, mekhaniki, astronomii, fiziki, khimii, 1959, No. 6, pp. 205 - 209

TEXT: Experiments were conducted by means of an electrode of finely disperse platinum deposited on platinum. The actual surface of the electrode was 33,000 cm^2. The adsorption capacity of hydrogen was $2.7.10^{-5}$ gram-atoms in 0.1 N HBr, and 38% of the catalyst were covered with H_2. Fig. 1 shows the course of the butinediol adsorption on the degasified catalyst surface (Curve I), and the reduction of butinediol by means of the hydrogen layer adsorbed on the catalyst (Curve II). Assuming that the potential difference $\Delta\varphi$ in the first approximation is proportional to the adsorption Fig. of butinediol molecules, the kinetic curve of the adsorption of organic substance was determined (Fig. 3, Curve I) by means of the charge curve of Fig. 2. The potential shift shows that butinediol is deposited on the electrode with the negative end of its dipole. The dipole moment μ was

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found to be $1.2.10^{-18}$ absolute electrostatic units. The reduction course given in Fig. 3, curve II, shows that the adsorption and reduction rates differ but little, so that the former may have a limiting effect. Fig. 4 shows the reduction of butinediol by means of adsorbed hydrogen, and its electrolytic reduction. In both cases the H adsorbed enters into reaction. Fig. 4 shows that only 55% of the H adsorbed is strongly active (has a low binding potential), whereas 26% are less active and 19% inactive. The influence of catalyst poisons (As, Hg) on the course of reduction will be published later on. There are 4 figures and 5 Soviet references.

ASSOCIATION: Kafedra obshchey khimii (Chair of General Chemistry)

SUBMITTED: July 7, 1959

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VOVCHENKO, G. [Vovchenko, H.]

On the road to continuous progress. Sil' bud. 9 no.8:4-6 Ag '59. (MIRA 12:12)

1.Zamestitel' predsedatelya ispolnitel'nogo komiteta Chernovitskogo oblastnogo soveta deputatov trudyashchikhsya.
(Chernovtsy Province--Farm building)

LEVSHIN, Leonid Vadimovich; VOVCHENKO, G.D., prof., otv.red.; BERNSHTEYN, S.B., prof., red.; VILENSKIY, D.G., prof., red.; GORDEYEV, D.I., prof., red.; GUDZIY, N.K., prof., red.; ZAYONCHKOVSKIY, P.A., prof., red.; KECHEK'YAN, S.F., prof., red.; MEL'NIKOVA, K.P., kand.nauk, red.; POLYANSKIY, F.Ya., prof., red.; RYBNIKOV, K.A., prof., red.; SKAZKIN, S.D., akademik, red.; SOLOV'YEV, A.N., dotsent, red.; ZAYTSEVA, M.G., red.; GEORGIYEVA, G.I., tekhn.red.

Sergei Ivanovich Vavilov. Moskva, Izd-vo Mosk.univ., 1960. 101 p. (Zamechatel'nye uchenye Moskovskogo universiteta, no.24). (MIRA 13:6)

(Vavilov, Sergei Ivanovich, 1891-1951)

KHOMCHENKO, G.P.; GRISHINA, T.M.; KRASNIKOVA, L.Ya.; PLETYUSHKINA, A.I.; TSINTSEVICH, V.M.; VOYCHENKO, G.D.

Behavior of adsorbed hydrogen in reactions of hydrogenation of organic substances on platinum and rhodium electrodes-catalysts. Part 1. Vest. Mosk. un. Ser. 2: Khim. 15 no.5:39-46 S-O '60. (MIRA 13:11)

1. Moskovskiy gosudarstvennyy universitet, kafedra obshchey khimii.
(Hydrogen) (Hydrogenation)

KHOMCHENKO, G.P.; GRISHINA, T.M.; KRASNIKOVA, L.Ya.; PLETYUSHKINA, A.I.; TSINTSEVICH, V.M.; VOVCHENKO, G.D.

Behavior of certain organic substances in hydrogenation reactions on platinum andrhodium catalyst electrides. Vest. Mosk. un. Ser. 2: Khim. 15 no.6:30-32 N-D '60. (MIRA 14:2)

1. Kafedra obshchey khimii Moskovskogo universiteta.
(Hydrogenation) (Platinum) (Rhodium)

BAKHVALOV, Sergey Vladimirovich: VOVCHENKO, G.D., prof., otv.red.; BERNSHTEYN, S.B., prof., red.; VILENSKIY, D.G., prof., red. [deceased]; GORDEYEV, D.I., prof., red.; GUDZIY, F.K., prof., red.; ZAYONCHKOVSKIY, P.A., prof., red.; KECHEK'YAN, S.F., prof., red.; MEL'NIKOVA, K.P., kand.nauk, red.; POLYANSKIY, F.Ya., prof., red.; RYBNIKOV, K.A., prof., red.; SKAZKIN, S.D., akademik, red.; SOLOV'YEV, A.N., dotsent, red.; GOL'DENBERG, G.S., red.; GEORGIYEVA, G.I., tekhn.red.

Nil Aleksandrovich Glagolev. Moskva, Izd-vo Mosk.univ., 1961. 29 p. (Zamechatel'nye uchenye Moskovskogo universiteta, no.28). (MIRA 14:12)
(Glagolev, Nil Aleksandrovich, 1888-1945)
(Nomography (Mathematics)) (Geometry, Projective)

REMEZOV, Nil Petrovich ; VOVCHENKO, G.D., prof., otv. red.; GORDEYEV, D.I., prof., red.; VILENSKIY, D.G., prof., red.; BERNSHTEIN, S.B., prof., red.; GUDZIY, N.K., prof., red.; ZAYONCHKOVSKIY, P.A., prof., red.; KECHEK'YAN, S.F., prof., red.; MEL'NIKOVA, K.P., kand. geologo-mineralog. nauk, red.; POLYANSKIY, F.Ya., prof., red.; RYBNIKOV, K.A., prof., red.; SKAZKIN, S.D., akad., red.; SOLOV'YEV, A.I., dots., red.; KOROETSOVA, N.A., red.; MASLENNIKOVA, T.A., tekhn. red.

[Vladimir Vasil'evich Gemmerling] Vladimir Vasil'evich Gemmerling. Moskva, Izd-vo Mosk. univ., 1961. 57 p. (MIRA 14:7)
(Gemmerling, Vladimir Vasil'evich, 1880-1954)

KHOMCHENKO, Gavriil Platonovich; VOVCHENKO, G.D., prof., otv. red.; GOL'DENBERG, G.S., red.; GEORGIYEVA, G.I., tekhn. red.

[Laboratory manual in general chemistry and qualitative analysis with the use of the semimicromethod] Praktikum po obshchei khimii i kachestvennomu analizu s primeneniem polumikrometoda. Izd.2., perer. i dop. Moskva, Izd-vo Mosk. univ., 1961. 39[illegible] p. (MIRA 14:8)

(Chemistry—Laboratory manuals)

VOVCHENKO, G.D.; SALTANOV, Yu.A.

Moscow University, named after M.V.Lomonosov. Vop.ist.est.i tekh., no.12:157-160 '62. (MIRA 15:4)

(Moscow University)

SEMENOVA, A. D.; KHOMCHENKO, G. P.; VOYCHENKO, G. D.

Reduction and electroreduction of organic substances on platinized platinum. Part 2: Effect of the composition of electrolyte on the catalytic reduction of allylbenzene. Vest. Mosk. un. Ser. 2: Khim. 16 [i.e.17], no.6:51-54 N-D '62. (MIRA 16:1)

1. Kafedra obshchey khimii Moskovskogo universiteta.

(Benzene) (Reduction, Electrolytic)

SEMENOVA, A.D.; KHOMCHENKO, G.P.; PLETYUSHKINA, A.I.; VOVCHENKO, G.D.

Reduction and electroreduction of organic substances on a platinized platinum. Part 1: Behavior of allylbenzene, propenylbenzene, and α-methylstyrene on a surface of platinum electrode. Vest.Mosk. un. Ser.2:khim. 17 no.1:49-54 Ja-F '62. (MIRA 15:1)

1. Moskovskiy gosudarstvennyy universitet, kafedra obshchey khimii.
(Benzene) (Styrene) (Electrodes, Platinum)

GRISHINA, T.M.; KHOMCHENKO, G.P.; VOVCHENKO, G.D.

Electrochemical investigation of rhodium and osmium catalyst-electrodes. Report No.1. Vest.Mosk.un.Ser.2: Khim. 17 no.2:53-56 Mr-Ap '62. (MIRA 15:4)

1. Kafedra obshchey khimii Moskovskogo universiteta.
(Electrodes, Rhodium) (Electrodes, Osmium) (Electrochemistry)

S/189/63/000/001/005/008
D204/D307

AUTHORS: Tsintsevich, V. M., Khomchenko, G. P. and Vovchenko, G. D.

TITLE: The effect of the structure of organic compounds on their reduction and adsorption

PERIODICAL: Moscow. Universitet. Vestnik. Seriya II. Khimiya, no. 1, 1963, 27-31

TEXT: The reduction and adsorption properties of butynediol-1,4 (I), tetramethylbutynediol-1,4 (II) and 1,4-dimethyl-1,4-diethylbutynediol (III) were studied in 0.1N H_2SO_4, using a platinized Pt electrode which also served as a catalyst (true surface 17000 cm^2). 83% of the electrode surface was covered with atomic hydrogen. It was found that the rates of catalytic reduction of I, II and III in the adsorption layer of hydrogen and of electroreduction decreased in the order I > II > III. The rates of electroreduction were very low but increased rapidly as the electrode potential became less positive (i.e. with a decrease in the adsorption potential

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S/189/63/000/001/005/008
D204/D307

The effect of the ...

of hydrogen). Adsorption of I, II, and III on degassed electrode, at 0.6 V, and reaction with atomic hydrogen showed that both the adsorption ability and reactivity w.r.t. hydrogen decreased in the order I > II > III. There are 7 figures and 2 tables.

ASSOCIATION: Kafedra obshchey khimii (Department of General Chemistry)

SUBMITTED: May 22, 1961

Card 2/2

GRISHINA, T.M.; KHOMCHENKO, G.P.; VOVCHENKO, G.D.

Electrochemical study of rhodium and osmium electrode-catalysts. Part 2: Effect of poisoning on the capacity of rhodium electrode. Vest.Mosk.un. Ser.2:Khim. 18 no.1:48-51 Ja-F '63. (MIRA 16:5)

1. Kafedra obshchey khimii Moskovskogo universiteta.
(Electrodes, Rhodium)

STOYANOVSKAYA, T.N.; KHOMCHENKO, G.P.; VOVCHENKO, G.D.

Behavior of the ruthenium electrode during deep anodic polarization. Vest.Mosk.un.Ser.2:Khim. 18 no.2:20-21 Mr-Ap '63. (MIRA 16:5)

1. Kafedra obshchey khimii Moskovskogo universiteta.
(Electrodes, Ruthenium) (Polarization (Electricity))

KRASNIKOVA, L. Ya; KHOMCHENKO, G.P.; VOVCHENKO, G.D.

Effect of arsenic on the catalytic and electrolytic reduction of crotonic and maleic acids on platinum. Vest. Mosk. un. Ser. 2 Khim. 19 no.2:33-36 Mr-Ap'64 (MIRA 17:6)

1. Kafedra obshchey khimii Moskovskogo universiteta.